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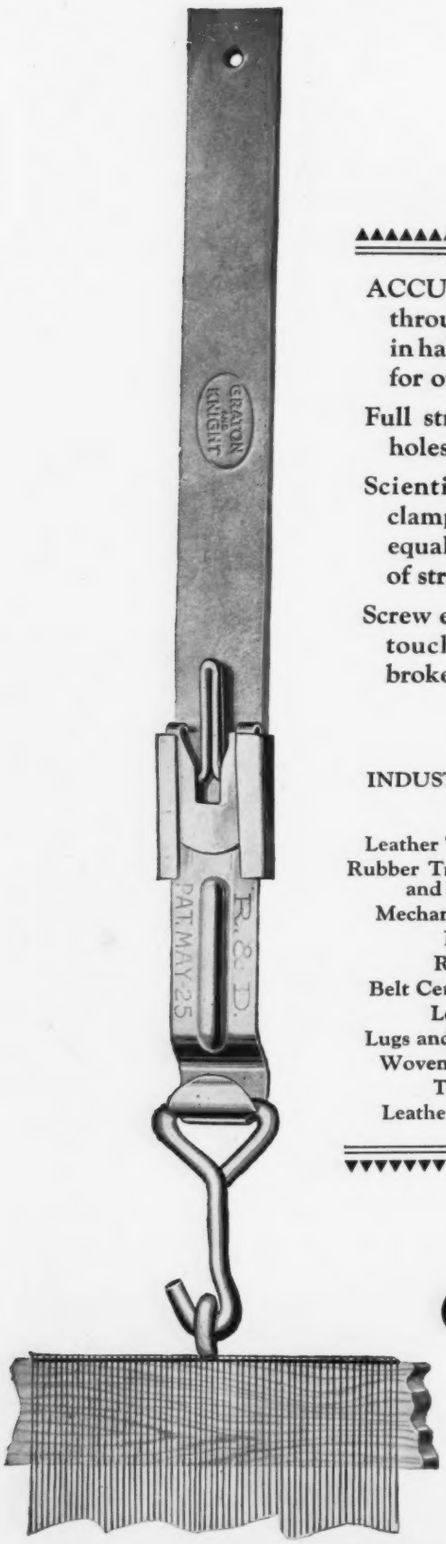

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Vol. 94 **COTTON** No. 10

August, 1930

W. R. C. SMITH, Publisher
T. W. McALLISTER, Editorial Director ROBERT W. PHILIP, Editor

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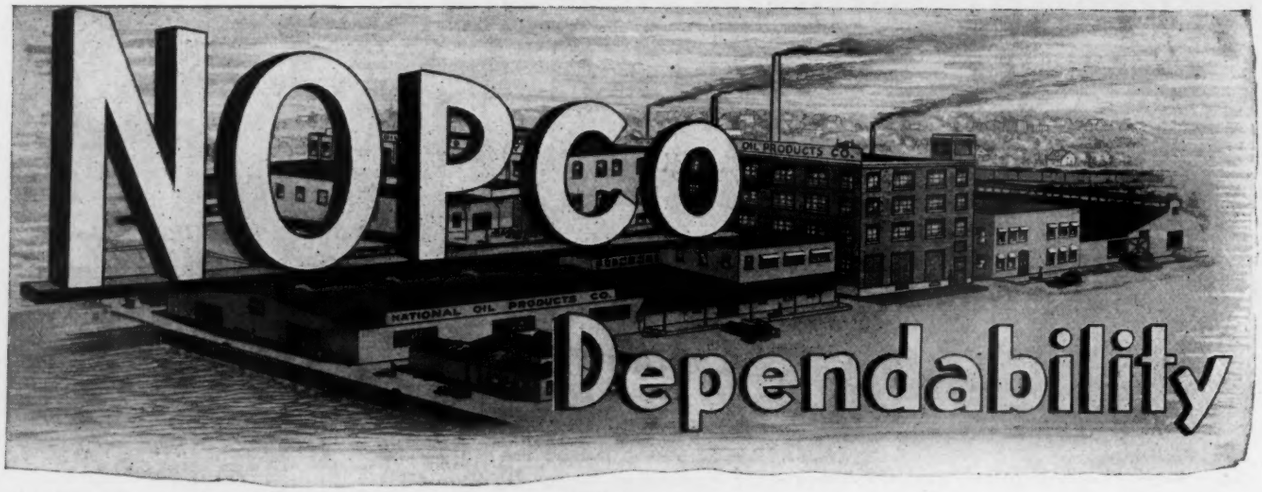

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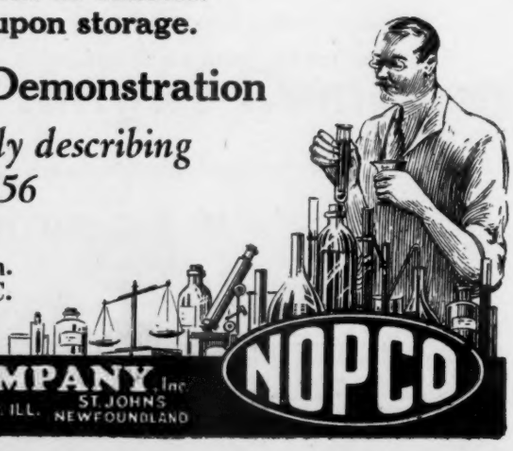

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COTTON

Vol. 94 August, 1930 No. 10

Cost Figures *and the Operating Executive*

By Sydney P. Munroe

IF COSTS and the figuring of costs seem to you as something too complicated; if you think they are things remote from the manufacturing department; if they appear to have no relation to dividends—then read this clear and interesting discussion of the relation between cost figures and the operating executive. It will set you aright on these and other points.

Mr. Munroe is manager of the cost department of the Cotton-Textile Institute, and in discussing his given subject, points out many things regarding costs that will help the financial man as well as the operating executive.—THE EDITOR.

A SATISFACTORY COST SYSTEM serves two functions. *First*, it should develop the normal cost of each separate style or pattern of goods or count of yarn which the mill sells, and it should be so devised as to enable the management to predict with reasonable accuracy, the cost in its mill of any style or yarn not previously made. *Second*, the records and reports regarding payrolls, productions, waste, etc., which are kept for the purpose of maintaining the cost system should be so designed that they provide very valuable information for the operating executives, that is, the superintendents and overseers. Both of these main functions of the cost system affect the operating executive very closely, as I shall try to explain later.

In saying that the first function—and to my mind the most important function—of a satisfactory cost system is the development of normal costs on each yarn and fabric made, and of pre-determined costs on those styles of yarns proposed, I do not mean the development of a standard cost or a cost which is to be aimed at and perhaps never achieved. By normal cost we mean the cost which your mill will actually attain under normal conditions, with unusual or special circumstances eliminated. We mean a cost which will reflect truly and equitably the logical differences in manufacturing procedure which will be encountered in manufacturing any two or more fabrics or yarns. Such figures are principally of importance for sales purposes, and when correctly developed they will point the way accurately to the fabrics on which the mill can achieve the best results, and to the prices in each case which the mill must obtain to show a profit from its manufacturing activities. The intelligent use, by a skilled management, of such data in connection with its selling policies will have a very direct effect upon the profits of the mill, even in such difficult times as we now face.

Mr. Munroe.
Underwood & Underwood

Such pre - determined normal cost figures should reflect every important distinction in processing different rovings, yarns or fabrics in the mill, they should include all overhead charges, they should allow for waste losses and waste credits, and should reflect certain features of management policy. Among the latter, we of the Institute believe that these costs should include ample depreciation based not on the cost of the plant, but on what it will cost to replace it, and that they should also include an allowance for a reasonable return on the capital which the mill has invested in its plant and in normal inventories. We also believe that these figures should be so designed as to take account of the normal amount of curtailment which the mill is likely to experience in the future as indicated by its past records over a lengthy period of time. It is also our belief that for quotation purposes the cotton costs should represent replacement value.

As several of the items mentioned do not in any way correspond to records on the general books, we do not advocate that the cost systems should be tied in with the bookkeeping records. A quarterly check-up or reconciliation of these normal cost figures against actual expenditures is desirable, and, as often as indicated by the results of this check-up, the original cost figures should be re-worked.

To support this periodical check-up, careful reports should be made from each department and summarized in the records. I will not weary you with all the detail of this question of reports, except to say that they include, among other information, such items as the pounds of cot-

ton used, the pounds of each yarn produced, the spindles operated on each yarn, the yards and pounds of each style woven, the looms operated on each style, and the pounds of each kind of waste made. Such information reported weekly from the various departments should be tabulated in the office in such a way that the superintendent and other officials can see at a glance just how the performance of any department for any week compares with its performance during previous weeks and with the budget figures used originally in developing the cost data. Such records should also include a weekly payroll analysis showing the amount of money spent for each kind of occupation in the mill, each figure being shown in the same column with corresponding figures for previous weeks, and with the budgeted amount at the top of the column. The superintendent and overseers by examination of such records can immediately see the trend of any particular detail of production, operation or payroll and promptly remedy any undesirable situation.

Such reports for any week requires but a short time for their development, and should be available very promptly for the inspection of everyone concerned. It is probably needless to point out the value which such a series of tabulations would have for the operating executives. They would have before them at all times definite records showing the trend of their payroll expenditures, their operations, their productions and their waste. Many mills also develop records of repair and supply expenditures by departments, and these again can be tabulated as described. In addition to having the trend of these items visibly displayed, they are also shown in comparison with the budgeted figures on which the original costs are based. We have known numerous cases where such payroll tabulations alone have resulted in savings of hundreds of dollars per week.

In the foregoing remarks I have tried to outline briefly the sort of cost systems which we of the Institute are recommending. It is a method which is easily maintained, requiring only a fraction of a man's time in any ordinary mill, and, as I have explained, it provides figures of infinite value for selling purposes, together with data which enable the superintendent and overseers to know accurately at all times the performance of the various departments. In the latter respect it has the further virtue of promptness of information, enabling undesirable situations to be corrected immediately as soon as they develop.

There is another type of cost system which was in vogue some 20 or 25 years ago, developed principally by agencies whose experience had been chiefly in other industries. This other type of cost system proposes to re-figure periodically—in some cases once a week, in other cases once a month— a so-called actual cost for each product of the mill. Any one thoroughly familiar with all the details involved in cotton manufacturing must realize that, in a mill of even moderate variety, a computation of the cost of each product of the mill for a given specified period must involve a tremendous amount of detail if it is to be accurate. The only way to avoid such an immense degree of complication is to employ short cut methods which will result in misleading the mill as to the cost relations between different fabrics. This type of cost system is generally tied in with the bookkeeping systems, which again adds to the complication of the method and impairs its flexibility.

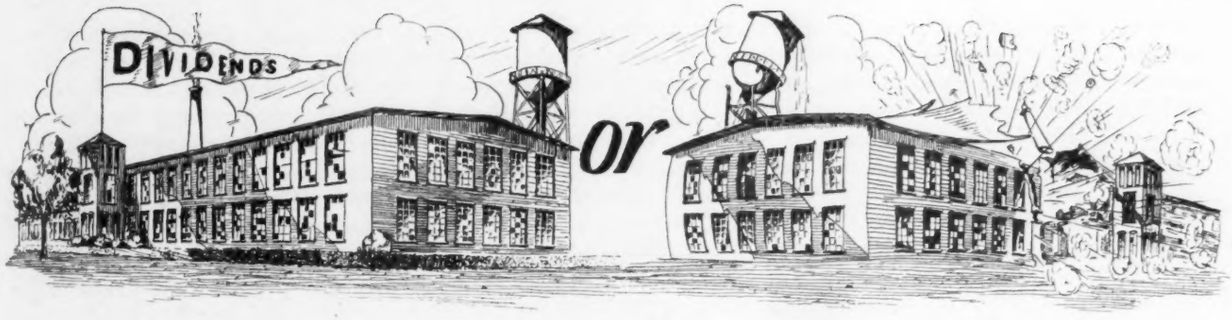
There is no particular value in having these so-called actual figures on each style available periodically, because even if they indicate an undesirable condition has obtained during the period in question, the mere statement, let us say, that the cost of 30s warp is one half cents per pound higher than the previous month is meaningless to the operating executive until he has gone back and broken down these figures to determine whether that increase in cost was due to payroll increases, to a falling off in production per spindle, to curtailment, to an unusual expenditure for supplies, or what not. In other words we have a situation where we have gone to great effort to develop figures only to have to tear them apart to find out what they mean, and the figures we are analyzing may represent a situation which has obtained over a month or six weeks before we are informed regarding it. It is our emphatic belief that all the purposes served by such so-called actual costs are better served by the tabulated records I have previously described, which are easily understood and are available within a day after the close of the week in question.

Furthermore, as the system is tied in with the books the management is handcuffed in respect to introducing cost increments which should very properly be reflected in the selling price but which cannot be embodied in the bookkeeping system.

I have indicated how suitable records supporting the cost system can be made of great value to the operating executive. There is another and less thoroughly understood means whereby the installation of a modern cost system by competent and experienced outside consultants can become of great value to all connected with the mill. I refer to the outside viewpoint and fund of information which such consultants can bring to bear upon your problems. Such experienced consultants have through years of contact with cotton mills in establishing cost systems throughout the country; accumulated a knowledge of what is standard practice as regards labor assignments, productions, efficiencies, waste percentages, and overhead expenses such as could not be obtained by any individual except by analyzing the records of several hundred mills. This fund of information is at your disposal when you employ such consultants, and to my positive knowledge has resulted in immense savings in many cases. I could show you a letter from a mill president indicating that such service rendered by me in my former capacity has resulted in a saving in his mill of over

(*Continued on page* 1126.)

THIS DISCUSSION of cost figures and how they affect the operating executive was presented by Mr. Munroe at the annual convention of the Southern Textile Association, at Myrtle Beach, S. C., on June 27th. It is reproduced separately here because of the vital importance of the subject, in an effort to direct especial attention to his interesting discussion of it.
—The Editor.



Dividends *or* Bust!

By George S. Brown, Superintendent,
Cabot Mfg. Co., Brunswick, Me.

WHATEVER YOU DO, please don't say about this article, "Oh, I know several fellows who ought to read this," and let it go at that. Mr. Brown is talking to YOU. Aimed primarily as a heart-to-heart talk and self-analysis, from one working cotton mill superintendent to another, Mr. Brown's philosophy and advice is applicable to everyone who reads this, regardless of his field or position. We submit it as a helpful, inspirational discussion for the man who will read it and apply it to himself.—THE EDITOR.

ONCE IN A WHILE it does us a lot of good to get right down to brass tacks and look at things in a real cold-blooded manner. To see things as they actually are; not as we would like to have them; not as they used to be in years gone by. We are not living in the past, and although we may plan for the future, nevertheless we are still in the present and we should forget yesterday's shower and protect ourselves from today's storm before we prepare for tomorrow's.

It is what we do now, not what we used to do, or what we will do that counts. We may have earned an enviable reputation in the past. How far does it count in the present? Very little. It may cause people to have confidence in us for a while, but just let us try to live on that same excellent reputation and see how far we will get. And too many of us are at this moment trying to do that very thing.

It makes very little difference how much we know or can do if we fail to use our knowledge or ability. Let us not fool ourselves longer. In these days the job will no longer carry the man. Those days when there was a salary to be paid for a position, and some good fellow or relative was found to receive this salary, have gone. In years gone by, such conditions were only too true. Even now there are a few mills who do not seem to realize that the old system has gone to the discard, but these same mills are on well-greased skids.

We hear much about better management. We should hear more about it. We should hear about some of the things that should be done, and some of the things that should not be done. We should know some of the details and a few will be mentioned here. Don't let us fail to remember that details make or break a mill. If the details are properly attended to there will not be a fraction of the big difficulties that many mills have to face.

A mill is successful only when it makes money—when its stockholders get dividends. We may beat about the bush all we wish to and talk till we are black in the face, but this fact holds true. Dividends spell success. No matter how big a man we may think we are, or how big a salary we draw, we are not successful if our plant does not pay dividends to its stockholders.

If our plant pays no dividends, then regardless of all excuses, happenings, hard luck or panics, the plant is being run at an excessive cost for its receipts. No dividends, no success. Tough, but true.

Let's look ourselves over and see if we are really earning our salaries, no matter how large or small they may be. Are we onto the job?

First off, absent treatment will not run a mill successfully. We have got to be at the plant if we expect to run it right. This does not mean: arrive at about 9:30 A.M. and stay till 11:00, a couple of hours for luncheon and back again at 2:00 P.M., only to leave at 3:00 for the ball game or the golf course. Too many of us are trying to get away with that bluff about how much better we can handle our jobs by dropping everything in the business line every now and then and just devoting our time to relaxation and sport. How we try to "kid" ourselves and others about coming back to the job refreshed and filled with vigor, all primed to tackle our problems and tear things wide open! We seldom let it get out that while we were absent, things more or less went to the dogs. Then just about the time when we bump up against a stiff problem, it is time to again relax; we relax. The mill runs 54 hours a week. We direct it by being present about 27 hours. We direct 27/54ths or half of the time and only too true, we just about half direct it. The results generally show it.

It is fine if we can get away with this sort of murder. It used to be quite the correct thing in years gone by, but we are now living in the present. The past and its methods are gone for good and why under the sun is it that so many of us will not allow ourselves to see this truth? We "belly-ache" about the

return of normal times. Cannot we see that times are normal. The past *was* perhaps normal but such conditions, whether better or worse, would not be normal now. Why should we consider the normal conditions that prevailed two or three years ago as normal now when we at the same time would laugh ourselves sick at the fellow who would suggest that normal conditions are such as existed in 1492. One is as reasonable as the other. We should just bear in mind that the past is dead. We are living in the present and we should consider that conditions such as exist are normal if it will help us to adapt ourselves to them and win success. The old days are gone and if we still live in them, we too are gone.

Now let us look into some of the matters that will help us hold our jobs—help us get our mills in the list of successful ones—help us get better jobs and better salaries.

Be on the Job.

The first requisite is: *Be on the job.* Get there to see the plant start up, and stay there till it shuts down. Do the managing if that's our job. And we can do it if we are on the job. We are paid to make decisions and we can make them correctly only when present. Letting some other fellow do this for us and then raising "Ned" with him for doing wrong when we return and find his decisions have caused a loss of some hundreds of dollars, is not managing a plant. We must be there when these decisions are to be made for we are paid to make them, and we are supposed to have the ability and judgment to make them correctly. Otherwise we are not fit for the job.

We may try to make others think that we can sit in our office chair and with the aid of our telephone, direct the plant operations perfectly. Can we? Lots of us think so, but we cannot. Lots of us try to get away with this sort of stuff, but it doesn't go. We have got to know our plant. We have got to know the actual conditions that exist by actual continuous observation. We must know at all times not where the strongest points are, but where the weakest ones lie, and then not let up an instant till these spots are strengthened.

Be Thoughtful of Operatives.

Like master, like servant. If just to save our legs, we are too lazy to go up a couple of flights of stairs to attend to some business that is urgent, but instead, to show our authority, send for the department head to come to us—and likely at a time when that person should not leave his room—it is setting an example for others to do likewise. Stuff like this spreads. The example we should set is: *Be just as thoughtful of those under us as we are of those over us.* It will save all of us trouble. We will soon see how well our men reciprocate.

Have Confidence in Them.

We should show by our actions and words that *we have confidence in those under us.* We should not ride a man when he makes an honest error. By this I mean, a mistake made by a person who at the time was earnestly attending to his job and doing his level best to give us the best in him. The chances are overwhelming that this man feels worse than we do about the error, and there are no chances at all but that he is worth more to us after the mistake than he was previous to it, for its re-occurrence is very unlikely.

It is the mistake of the lazy, careless "cuss" that should not be tolerated. When we find that we have such a liability in our organization, we cannot drop him too quickly, and we should pay no attention to private or public opinion in such cases. Fire the fellow as quickly as possible, for it takes but just one of these parasites in a department to suck the life from the entire organization.

Look After the Small Things.

Look into and after the small things. By doing this we are really looking after the *big* things. Insist that all of our men in charge do likewise. Insist that they immediately take up with other interested departments anything that appears out of the ordinary. Also insist that they inform us so that we may be in close touch and posted early before we get a shock later by finding thousands of dollars damage done before we ever had an inkling that anything was wrong.

Have Confidence in Yourself.

Have confidence in ourselves. If we haven't, we are not fit for the job. Confidence is just as catching among men as panic is. Have confidence in our men and show them that we have. We can show them that we respect their ability and knowledge by discussing with them the orders that we wish carried out. Nobody can know too much about what is wanted and how to get it, and no matter how sure we may be in our orders, the other fellows' ideas are always worth considering. If we stick to the habit of issuing arbitrary orders and don't give a rap about what our men might have up their sleeves in the way of securing results such as we would like, we are going to regret it sorely some day. We may already be regretting it now and don't know just what the matter is.

Get Your Men's Ideas.

We will not lose prestige *by getting our men's ideas.* We will never lose our jobs because we have good men working for us. And the nearer they come to working *with* us the safer our jobs will be. It may be mighty fine to brag about *demanding* work from our men and getting it done 100 per cent, but it is a blamed sight better to *ask* our men to do the work and have those same men do it about 200 per cent.

Of course if our knowledge is so inferior that we are afraid of being shown up if we attempt to discuss matters with our men, then the answer is simple—we ought to get out before we are fired out.

Likewise we are in almost as dangerous a position if we think that we know it all. In this case there is no hope for us, for our men, for the mill. As soon as we arrive at the point where each day we cannot learn something because we already think that we know it all, it is time for us to retire voluntarily or we very likely will be forcibly retired—better call it *fired.*

(*Continued on page* 1173.)

T. M. Marchant says that

Co-operation *is* Essential

WHILE HIS REMARKS are addressed primarily to the members of the Cotton Manufacturers' Association of South Carolina, of which he was recently re-elected president, Mr. Marchant has expressed in the accompanying discussion some thoughts which we commend to every reader for serious consideration. The matters of balancing production to demand, the elimination of over-production and night work for women and minors, the encouragement to farmers to grow better cotton—these are subjects of general interest and importance, and we know you will be interested in this progressive man's views on them.—THE EDITOR.

THE TEXTILE INDUSTRY has been through rather trying times since a year ago. While different programs have been outlined, looking toward improvement, and in many cases have been adopted, much work is yet to be done. However, we can still look upon the bright side of life, feeling that loyalty and love for this great industry has bound the ties of friendship closer, making us understand each other better.

Since the severe decline in the stock market last October, we have been going through one of the worst panics in our business experience.

Readjustment of all businesses will be necessary. We who are so closely connected with this industry, no doubt, feel that our burden is somewhat heavier than others, yet as business men, we failed to look ahead as we should. Statistics were before us almost daily, calling our attention to the accumulation of stocks and the unsettled conditions and unstable markets throughout the world.

There has never been a time in the history of any industry when over-production was not a curse, and it should be recognized as the greatest outstanding evil in industry.

Drastic curtailment of production is not a sound practice, as we all know, but when capable mill executives turn a deaf ear to warning signals, then nothing but failure faces them, and the opportunity to put the industry on a sound basis is lost.

How long shall the Research Department in Washington continue to refer to this industry as the "backward industry" due to the fact that we have no program? How long shall we continue to operate our plants on an over-time schedule, producing more goods than can be sold, except at a loss? It seems to me that voluntary co-operation is the answer and we have this remedy in our own hand.

For many years now the cotton mill industry has been called a "sick industry." We have been running along, wearing out our machinery, showing small profits, and in many cases no profits at all. It is to be regretted that for some time a large percentage of the mills have been forced on a curtailment program and recently a more drastic policy has been adopted because we failed to look ahead and regulate our production according to demand.

What has brought about the present depression in the textile industry? Why have mills been forced on short time? Why are the prices for our products not on a profitable basis?

T. M. MARCHANT, Pres., Victor-Monaghan Co.

Why are we forced to sell our product below cost? Why are wages not higher? There can be but one answer, and only one, and that is *over-production.*

The time has come for sound and honest thinking, for confidence in one another, and for all selfishness to be abolished.

In the future, there is one of two courses to follow: *First*: To co-operate like business men, bring production in line with consumption and secure a fair price for the product which you and your stockholders are entitled to on your investment, or—

Second: Continue to operate your plants on full time schedule, both day and night, regardless of supply and demand, and continue to sell your product at a loss, which will soon force the mills out of business.

Today we are facing one of the strongest combinations we have ever seen in business. That is, organized buying, against the mills' disorganized selling, and their over-production.

Don't lay at the door of our selling agents the fault altogether for the poor conditions we find ourselves in, and for the low prices we are receiving for our merchandise; but stop and think for a moment—if we had kept production in line with consumption, how much better off every one would be who has any part to play in the manufacture or marketing of our goods.

The Cotton-Textile Institute was organized to be of service to this industry. Have we used the information they have given us from week to week in the proper way?

return of normal times. Cannot we see that times are normal. The past *was* perhaps normal but such conditions, whether better or worse, would not be normal now. Why should we consider the normal conditions that prevailed two or three years ago as normal now when we at the same time would laugh ourselves sick at the fellow who would suggest that normal conditions are such as existed in 1492. One is as reasonable as the other. We should just bear in mind that the past is dead. We are living in the present and we should consider that conditions such as exist are normal if it will help us to adapt ourselves to them and win success. The old days are gone and if we still live in them, we too are gone.

Now let us look into some of the matters that will help us hold our jobs—help us get our mills in the list of successful ones—help us get better jobs and better salaries.

Be on the Job.

The first requisite is: *Be on the job.* Get there to see the plant start up, and stay there till it shuts down. Do the managing if that's our job. And we can do it if we are on the job. We are paid to make decisions and we can make them correctly only when present. Letting some other fellow do this for us and then raising "Ned" with him for doing wrong when we return and find his decisions have caused a loss of some hundreds of dollars, is not managing a plant. We must be there when these decisions are to be made for we are paid to make them, and we are supposed to have the ability and judgment to make them correctly. Otherwise we are not fit for the job.

We may try to make others think that we can sit in our office chair and with the aid of our telephone, direct the plant operations perfectly. Can we? Lots of us think so, but we cannot. Lots of us try to get away with this sort of stuff, but it doesn't go. We have got to know our plant. We have got to know the actual conditions that exist by actual continuous observation. We must know at all times not where the strongest points are, but where the weakest ones lie, and then not let up an instant till these spots are strengthened.

Be Thoughtful of Operatives.

Like master, like servant. If just to save our legs, we are too lazy to go up a couple of flights of stairs to attend to some business that is urgent, but instead, to show our authority, send for the department head to come to us—and likely at a time when that person should not leave his room—it is setting an example for others to do likewise. Stuff like this spreads. The example we should set is: *Be just as thoughtful of those under us as we are of those over us.* It will save all of us trouble. We will soon see how well our men reciprocate.

Have Confidence in Them.

We should show by our actions and words that *we have confidence in those under us.* We should not ride a man when he makes an honest error. By this I mean, a mistake made by a person who at the time was earnestly attending to his job and doing his level best to give us the best in him. The chances are overwhelming that this man feels worse than we do about the error, and there are no chances at all but that he is worth more to us after the mistake than he was previous to it, for its re-occurrence is very unlikely.

It is the mistake of the lazy, careless "cuss" that should not be tolerated. When we find that we have such a liability in our organization, we cannot drop him too quickly, and we should pay no attention to private or public opinion in such cases. Fire the fellow as quickly as possible, for it takes but just one of these parasites in a department to suck the life from the entire organization.

Look After the Small Things.

Look into and after the small things. By doing this we are really looking after the *big* things. Insist that all of our men in charge do likewise. Insist that they immediately take up with other interested departments anything that appears out of the ordinary. Also insist that they inform us so that we may be in close touch and posted early before we get a shock later by finding thousands of dollars damage done before we ever had an inkling that anything was wrong.

Have Confidence in Yourself.

Have confidence in ourselves. If we haven't, we are not fit for the job. Confidence is just as catching among men as panic is. Have confidence in our men and show them that we have. We can show them that we respect their ability and knowledge by discussing with them the orders that we wish carried out. Nobody can know too much about what is wanted and how to get it, and no matter how sure we may be in our orders, the other fellows' ideas are always worth considering. If we stick to the habit of issuing arbitrary orders and don't give a rap about what our men might have up their sleeves in the way of securing results such as we would like, we are going to regret it sorely some day. We may already be regretting it now and don't know just what the matter is.

Get Your Men's Ideas.

We will not lose prestige *by getting our men's ideas.* We will never lose our jobs because we have good men working for us. And the nearer they come to working *with* us the safer our jobs will be. It may be mighty fine to brag about *demanding* work from our men and getting it done 100 per cent, but it is a blamed sight better to *ask* our men to do the work and have those same men do it about 200 per cent.

Of course if our knowledge is so inferior that we are afraid of being shown up if we attempt to discuss matters with our men, then the answer is simple—we ought to get out before we are fired out.

Likewise we are in almost as dangerous a position if we think that we know it all. In this case there is no hope for us, for our men, for the mill. As soon as we arrive at the point where each day we cannot learn something because we already think that we know it all, it is time for us to retire voluntarily or we very likely will be forcibly retired—better call it *fired.*

(*Continued on page* 1173.)

T. M. Marchant says that

Co-operation *is* Essential

WHILE HIS REMARKS are addressed primarily to the members of the Cotton Manufacturers' Association of South Carolina, of which he was recently re-elected president, Mr. Marchant has expressed in the accompanying discussion some thoughts which we commend to every reader for serious consideration. The matters of balancing production to demand, the elimination of over-production and night work for women and minors, the encouragement to farmers to grow better cotton—these are subjects of general interest and importance, and we know you will be interested in this progressive man's views on them.—THE EDITOR.

THE TEXTILE INDUSTRY has been through rather trying times since a year ago. While different programs have been outlined, looking toward improvement, and in many cases have been adopted, much work is yet to be done. However, we can still look upon the bright side of life, feeling that loyalty and love for this great industry has bound the ties of friendship closer, making us understand each other better.

Since the severe decline in the stock market last October, we have been going through one of the worst panics in our business experience.

Readjustment of all businesses will be necessary. We who are so closely connected with this industry, no doubt, feel that our burden is somewhat heavier than others, yet as business men, we failed to look ahead as we should. Statistics were before us almost daily, calling our attention to the accumulation of stocks and the unsettled conditions and unstable markets throughout the world.

There has never been a time in the history of any industry when over-production was not a curse, and it should be recognized as the greatest outstanding evil in industry.

Drastic curtailment of production is not a sound practice, as we all know, but when capable mill executives turn a deaf ear to warning signals, then nothing but failure faces them, and the opportunity to put the industry on a sound basis is lost.

How long shall the Research Department in Washington continue to refer to this industry as the "backward industry" due to the fact that we have no program? How long shall we continue to operate our plants on an over-time schedule, producing more goods than can be sold, except at a loss? It seems to me that voluntary co-operation is the answer and we have this remedy in our own hand.

For many years now the cotton mill industry has been called a "sick industry." We have been running along, wearing out our machinery, showing small profits, and in many cases no profits at all. It is to be regretted that for some time a large percentage of the mills have been forced on a curtailment program and recently a more drastic policy has been adopted because we failed to look ahead and regulate our production according to demand.

What has brought about the present depression in the textile industry? Why have mills been forced on short time? Why are the prices for our products not on a profitable basis?

T. M. MARCHANT, Pres., Victor-Monaghan Co.

Why are we forced to sell our product below cost? Why are wages not higher? There can be but one answer, and only one, and that is *over-production.*

The time has come for sound and honest thinking, for confidence in one another, and for all selfishness to be abolished.

In the future, there is one of two courses to follow: *First*: To co-operate like business men, bring production in line with consumption and secure a fair price for the product which you and your stockholders are entitled to on your investment, or—

Second: Continue to operate your plants on full time schedule, both day and night, regardless of supply and demand, and continue to sell your product at a loss, which will soon force the mills out of business.

Today we are facing one of the strongest combinations we have ever seen in business. That is, organized buying, against the mills' disorganized selling, and their over-production.

Don't lay at the door of our selling agents the fault altogether for the poor conditions we find ourselves in, and for the low prices we are receiving for our merchandise; but stop and think for a moment—if we had kept production in line with consumption, how much better off every one would be who has any part to play in the manufacture or marketing of our goods.

The Cotton-Textile Institute was organized to be of service to this industry. Have we used the information they have given us from week to week in the proper way?

The officers of the Institute have no police power to make us digest the statistics and use them in a businesslike way, but may I appeal to you again and ask for closer and more personal consideration of these questions in the future, and that you assist in every way possible in helping the Institute to be of more service to this industry in the years to come.

From time to time the southern mills are criticized in public statements as to the long hours of work.

South Carolina has a 55-hour weekly labor law, which is less than any southern state, and it is interesting to compare our working schedule with even the New England states, as follows: Massachusetts: 48-hour weekly schedule (though male employees can work without limit of hours); Maine, New Hampshire and Rhode Island: 54 hours; Connecticut: 55 hours; and Vermont, 56 hours.

At this time I wish to congratulate the manufacturers for adopting the 55-50 weekly working schedule, and while we all realize even this basis is not sufficient today to correct over-production, it is a step in the right direction and will prove beneficial if every manufacturer will adopt it.

Wages and Labor Conditions.

We willingly allowed ourselves to be taken advantage of by thousands of employees coming from the farms and rural districts, giving them employment, and starting up our mills at night, until now we have these workers on our hands with no jobs for them. The position we find ourselves in today has brought criticism upon the southern textile industry as to the low weekly wage our employees are receiving, when it is necessary to divide the weekly hours of work between the regular employees and these spare workers.

In one of the large plants in South Carolina, some very interesting data have been obtained with reference to the wages and labor conditions.

In this plant there were 594 jobs, but there were 815 operatives on the payroll, or 221 more operatives on the payroll than there were jobs in the mill. These extra workers were retained to help relieve the surplus of the unemployed: yet they necessitate the laying off one or two days a week of 221 operatives.

This condition is a determining factor in the average weekly wage of the employees, as they receive pay for only the days they work. There are those who work only one or two days a week, for personal reasons. These conditions affect the average weekly wage of the operatives and statistics are misleading without this fact being given due consideration.

In this plant, if the 594 operatives worked regularly at their jobs, they would receive an average weekly wage of $16.85, while the average weekly wage for the 815 on the payroll is only $12.14. This plant has an investment in village, schools, churches, community houses and general maintenance which would equal approximately $92,000 annually. Outside of the mill village, the operatives would have to pay for these advantages, and when this is added to the weekly wage of the 594 operatives, they would receive an average weekly wage of $19.82.

Sentiment is growing throughout the nation that balancing production with demand is vitally necessary if this industry is to succeed. As I have already stated, drastic curtailment is economically unsound. Therefore, to guard against discontent on the part of the employees and to stop unfavorable legislation and bring about a more friendly spirit between employer and employee, I bring to your attention the matter of working out some plan or program whereby the *discontinuance of working women and minors at night will be effected.*

Night Work.

Night work in our cotton mills is responsible for the unsettled condition in this great industry, and until we are ready to face these facts in an intelligent way, and balance production to demand, this industry of ours cannot be put on a sound basis.

During the past several years, the mill executives have made some reduction in the number of children between 14 and 16 years of age employed in their plants, but may I call to your attention the statement I made one year ago, that in the five plants of the Victor-Monaghan Company there were 112 children between 14 and 16 years of age, or about 3½ per cent out of more than 3,000 employees. Today I am pleased to say that we have only 18 children working in our five plants under 16 years of age and, none under 15. In a few months more we do not expect to have a worker in our plants under 16 years of age.

Despite this rather gloomy talk, I want to say most emphatically that I feel the cotton mills of South Carolina have been a blessing to the people of our state.

They have given continuous employment to a large percentage of our population and have brought people from the rural and mountain sections in close touch with education regilious and cultural advantages which they could never have enjoyed had they remained at their homes.

It is encouraging to note the way in which our boys and girls in the mills are taking their places alongside the city children in scholastic events. Unquestionably we should feel proud of the fact that we have done much toward the upbuilding of the character of our people. I feel that we are ready now for an intensive educational campaign along technical lines and that through the co-operation of our school system we should train all of the young people who are entering our mills in the art of the industry and that we should encourage public school systems to give training along vocational lines as well as the textile department of Clemson College.

Agricultural Conditions.

Agriculture is the backbone of this country. It, however, has been neglected just like the textile industry. Large crops have been grown and low prices received. Why shouldn't agriculture and industry join hand in hand, for what benefits one should be of benefit to the other?

It has always been a mistaken idea that low priced cotton means larger profits for cotton mills. Experience has taught the manufacturers that when the

(*Continued on page* 1117.)

The Manufacture and Use of Novelty Effect Yarns

By L. H. Beck, Superintendent
Cotton Mill Products Co., Mobile, Ala.

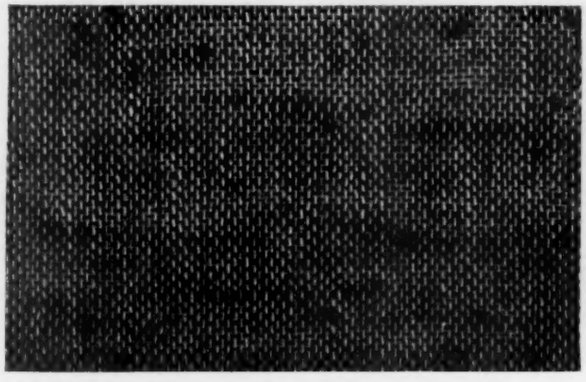
YOU WILL FIND this article interesting and instructive. It discusses in a brief way and without detail the general types of novelty yarn, as well as some of the uses to which these yarns may be put. In a later issue it is hoped to go more in detail into the uses of novelty yarns in producing various effects in woven fabrics, in an article to be devoted to this subject.—THE EDITOR.

IN THIS DAY of style diversification, novelty yarns in colored goods are playing quite an important part, and as the manufacture of these yarns is quite different from the methods used in producing ordinary yarns, a description of how they are made and what they are used for, may prove interesting.

Probably the simplest of the novelty yarns are the old slub yarns, used in the filling to give an uneven "lineny" effect to the fabric. The most common of these is the well known black and white "krash". This has, in time, been very popular, and a good deal of it is used yet for knickers and boys' pants. These products are usually made with a white warp and a solid black slub filling. Coarse warp and filling are usually used, about 8s warp and 6s filling, and the construction is low, about 28x28, or 28x30, or 30x30, and the goods weigh from the loom, in 36-inch width, from 2.70 to 3.25.

The goods are usually given a heavy linen, highly calendered finish, being weighted about 10 per cent.

This, as stated, is the simplest of the novelty or slub yarns, and is secured by using a coarse roving, made as uneven as possible, setting the card for this purpose, and getting the slub or nib by causing the front roll to have an intermittent motion. A single roving is used. The back and middle rollers driving constant, and the front roll, given an intermittent motion, comes momentarily to a stop; the extra stock is then drawn through and the slub is thus produced. The filling is usually made partly or all waste, this being done not only for the sake of economy, but because it accentuates the uneven lumpy effect desired.



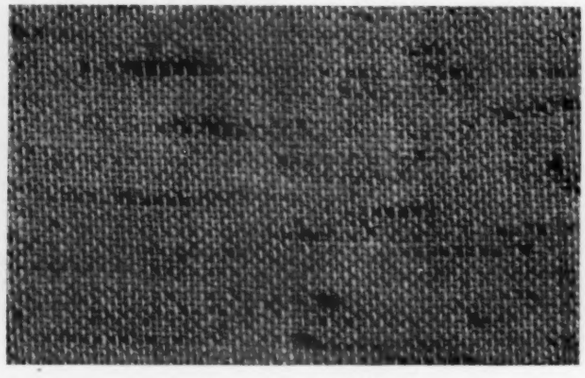
Sample No. 1. Black and White "Krash".

The effect produced with such yarn in the woven cloth is illustrated in the illustration, Sample No. 1.

In Sample No. 2, herewith, a "multi-nib effect" is made in an entirely different manner. A semblance of this effect can be secured on a spinning frame converted into a twister, using two rovings, feeding one constantly and the other intermittently, by a special arrangement of gearing, but the effect is rather poor, and to really get the large uneven vari-colored slubs, a special attachment is used usually on a regular twister, which some of the machine builders put out.

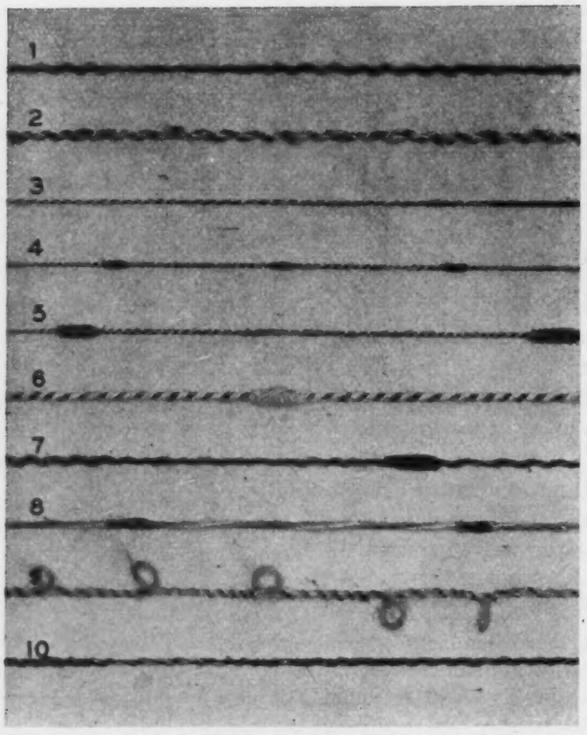
The cloth shown in this Sample No. 2 is covered with uneven slubs of various colored yarns, and the effect is to imitate a woolen fabric. Consequently, a much softer finish is given the goods, and they are not weighted as much as the goods previously described.

These goods are used for women's sport clothes. Here, too, a solid warp is used, in this case a pale tan and the base yarn is of a darker tan, with the varied nubs or slubs, with no semblance or regularity, the more irregular the better. Here a slub of green, here red, there brown with yellow showing through, and over there a mix of any or all of them.

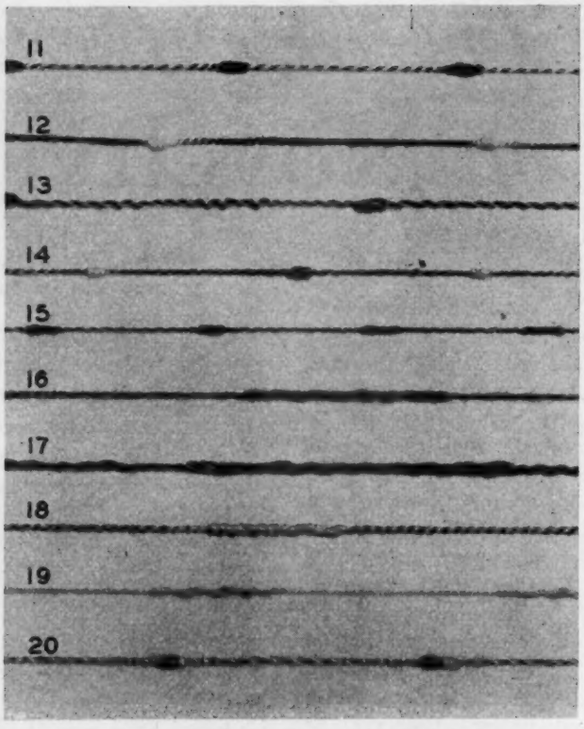


Sample No. 2. "Multi-Nib Effect".

As stated, this filling is produced in an entirely different manner from the old slub yarn in the black. The attachment mentioned consists of two sets of twisting rolls, one above the other, or one behind the other, and they are so arranged that they are independently driven. The speed of either line of these twisting rolls can be varied as desired. There is also a rocker arm to hasten or retard the roving fed in,



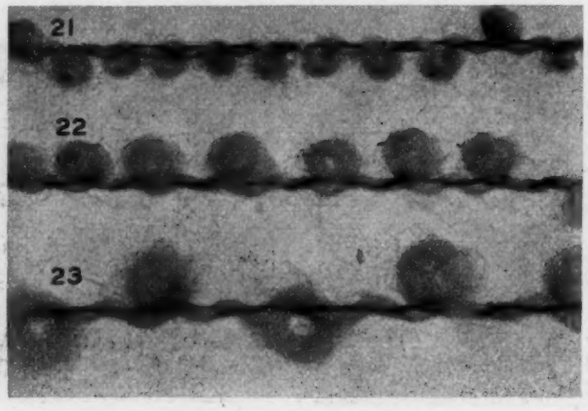
Group A. Spiral and Rocker Nub Yarns.



Group B. Intermittent Nub Yarns.

to give the excess stock, which causes the slub or nib, giving the uneven effect.

By the use of special gearing and cams, intermittent feeding is possible, which is responsible for the effect. In Sample No. 2, the base yarn is fed through the top set of rolls at a regular speed with the desired twist. The slub yarn is fed through the bottom set of twisting rolls, and by special gearing and cams and the slubbing or rocker arm, intermittent action is given this set of rolls which produces the slub. The size of this slub can, within reasonable limits, be made any dimension desired. The roving consists of a haphazard conglomerate "Tom and Terry" mix, which produced the effect which is noted in the cloth. Sometimes a binder yarn, which is usually a white warp yarn of considerably finer diameter, is used to bind this together. Usually this is a second process—regular twisting—though we have made similar yarns, running this warp yarn right along with the base yarn.



Group C. Loop Yarns.

Sometimes checked or cross-bar patterns are required, and in such cases, of course, box looms are needed, and this novelty yarn used only to make the pattern. In such cases, usually binder yarns are used for extra strength in the weaving, and for the sake of uniformity this is done to the filling. Such fabrics formerly were in much demand for children's play suits, and many novel and beautiful effects were obtained.

Many will recall the old days when ratines were so popular, for the time the demand exceeding the supply, and many and ingenious were the means employed to produce these yarns—oftentimes old discarded spinning frames were used to good effect. About the time many manufacturers really equipped themselves to make this yarn properly, they were as dead as a door nail, which is usually the case with all novelties.

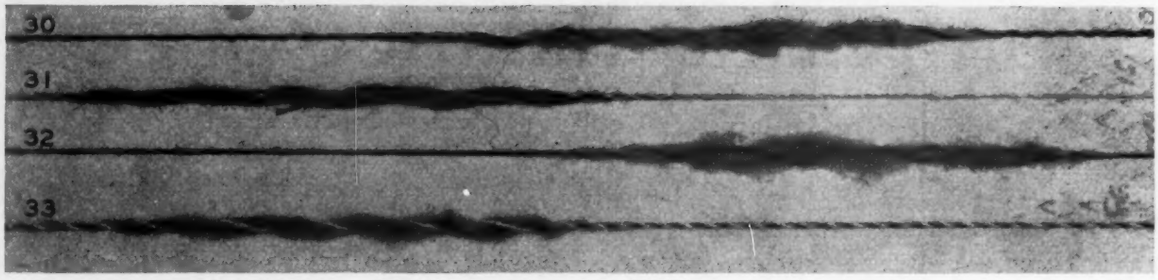
It would be interesting here, probably, to discuss briefly the various classes of novelty yarns. It will not be possible in this article to describe the manufacture of all these yarns, but a general description will be given, and those interested can go further into the matter as they desire.

Novelty yarns can be grouped, broadly, under the following heads:

A—Spiral yarns.
B—Nub yarns.
C—Loop yarns.
D—Splash yarns or elongated slub yarn.

These various groups are illustrated in the accompanying plates, which are used with the permission of Fales & Jenks Machine Co.

A—The spiral yarns are nothing more or less than



Group D. Splash Yarns.

yarns whose component parts are twisted differently. This is varied, of course, to give different effects. They can be made with or without binder threads.

B—The nub yarns, the most popular of all the novelty effects, are produced by feeding one of the rovings at an intermittent rate, causing the excess stock to draw unevenly, giving the lump. This can be varied in a great many ways and many different effects obtained.

The loop yarns in *Group C*, and the *splash or elongated yarns* in *Group D*, are not especially adapted to cotton, though the elongated nubs sometimes give good effects. However, in these classes of yarns, especially the *loop yarns*, a stiff coarse fiber, such as mohair is utilized to secure the loop effect—the difference in flexibility between this and the cotton or other base yarn causing this effect. These are probably the most spectacular of all the novelty yarns, and are largely used as decorations in ladies' dress goods.

All of the effects in the *spiral yarns* in *Group A* and the *nub yarns* in *Group B*, with the exception of No. 9 in *Group A*, can be produced in cotton, and by varying the size of the rovings, the speeds and the intermittent feeds, many pleasing and novel effects are possible. These are also being used to decorate rayon fabrics in fine dress goods effects.

Co-operation is Essential, says Marchant.

(*Continued from page* 1114.)

farmers can secure a fair price for their product, and have ready funds to spend for their livelihood, that there is greater prosperity for everyone.

Your association for many years has been contributing $2,000 annually, through Dr. Long of the Co-operative Extension Department of Clemson College, to be given as prizes to the farmers throughout South Carolina who produced the largest yield of cotton of certain length staple per acre.

Need for Better Cotton.

Why should it be necessary for cotton mills in this state to purchase the large percentage of their requirements of raw material in other sections, especially from the West, when we have the right kind of soil in our state to produce almost any length of cotton needed?

The past spring every effort was put forth by Dr. Long and his assistants, with the co-operation of the mill executives and county agents, to see that farmers in general were properly advised as to where to secure cotton seed that would produce cotton of such length as to meet the requirements of South Carolina mills. More than sixty farmers' meetings were held this spring through the aid of the Co-operative Extension Department of Clemson College, and thousands of bushels of satisfactory seed have been distributed by chambers of commerce and individual mills to farmers at a reasonable cost.

In addition, other business organizations and bankers have assisted greatly in this work.

For the farmer to be properly repaid for growing this special cotton, it is, of course, necessary that every attention be given to improvement in the ginning of the staple and in keeping the pure or improved seed separate at the gins. It is of vital importance that the farmers receive a premium for this special length cotton from the mills when they offer it for sale.

Therefore, I would like to impress upon you the importance of your being willing to give them a fair premium for this better staple, and thus show your willingness to co-operate with them in their effort to meet our demands.

Two Queries.

In closing, may I ask two simple but important questions?

If voluntary co-operation cannot be secured, would it not be more profitable to have uniform laws in all textile manufacturing states, prohibiting the working of women and minors at night, which would guarantee to you and your stockholders a fair return on their investment, putting you in position to pay higher wages to your employees, and lift this industry out of what is generally known as the "low wage" class?

Or, shall we disregard entirely all the laws of supply and demand, continuing to operate our plants on full time schedule, both day and night run, losing all opportunity to secure a reasonable profit and stabilize the industry, which our stockholders and the business world in general should demand?

Today bankers are much concerned over the demoralized state of the cotton goods industry, and business men over the nation cannot understand why, with the remedy in our hands, we do not correct our troubles and put this important industry on a sound basis.

Comparing Balance Sheets

By E. G. Field—of Wm. H. James & Co.

THIS ARTICLE shows that part of the textile industry's difficulties can be traced to inadequate financing being desperately continued by loans.

It permits you to compare your own balance sheet with a composite from several mills in the industry.

It calls attention to the importance of knowing the distribution of depreciation funds.

It develops these and other important facts well worthy of the study of mill executives in these times.—THE EDITOR.

ANNUAL FINANCIAL STATEMENTS are starting to appear for fiscal years ended in 1930. The profit and loss accounts will be generally unsatisfactory. The balance sheet will contain the effect of the experienced losses and dividends.

Part of the difficulties within the textile industry can be traced to inadequate financing being desperately continued by loans. In turn this shortage in capitalization may have resulted from improper dividend policies and may have been extended by the lack of profits that attend competition for volume regardless of profit margins.

A review of some last year's statements is now offered for two purposes: first, to furnish mill administrators with a composite average balance sheet with which individual statements may be compared, and second, to furnish an example of the results attending inadequate financial policies.

For illustrative purposes the published balance sheets of seventeen mills, with an aggregate book value of over $48,000,000.00 in plant acquisition, have been tabulated. These statements were as of September 30th or August 31, 1929. In order to facilitate comparisons, the balance sheets were arranged uniformly and then reduced to a common-size with all items expressed in relation to $100.00 of total assets or liabilities.

The composite or total balance sheet for these seventeen mills is now presented:

Balance Sheet	Average	High	Low
Cash and Receivables	$ 12.80	$ 36.19	$ 3.92
Inventories	21.28	55.44	2.87
Marketable Securities	3.95	39.34	....
Current Assets	38.03	67.38	21.36
Investments, Treasury Stock, etc.	13.07	69.36	....
Net Plant after Depreciation	48.18	77.42	3.80
Deferred Expense and Other Assets.	.72	4.16	....
Total Assets	$100.00	$100.00	$100.00
Notes and Accounts Payable	14.09	60.92	....
Accrued Expenses	1.11	7.43	....
Current Liabilities	15.20	61.52	.93
Contingent and Special Reserves	2.40	19.67	....
Invested Capital	82.40	99.07	38.48
Total Liabilities	$100.00	$100.00	$100.00

Using this average distribution of assets and liabilities, each manager can observe the way in which the statement of his mill does compare with the total or average for this group of companies. Attention is directed to the fact that there is an extreme variation between these mills as shown by the items high and low. It is therefore desirable that individual comparisons be better than the average in order to indicate favorable factors.

The size of the depreciation reserve is of interest in relation to the plant values, thus:

Classification	Average	High	Low
Gross Plant at Book Value	$ 80.56	$143.81	$ 34.62
Less Depreciation Reserve	32.38	74.31	5.62
Net Plant	$ 48.18	$ 77.42	$ 3.80

It is largely for the benefit of the bond holders that the net book value is shown in the balance sheet since investors of this class and the bankers concerned desire to watch the amount of net plant and see that it is well in excess of any bonds thereon.

In the textile industry the amount of plant is relatively large and accordingly a large proportion of invested capital is necessary. This invested capital here includes the bonds, preferred stocks, and the common stocks with surplus, thus:

Classification	Average	High	Low
Bonds	$ 5.19	$31.05	....
Preferred Stocks	12.29	55.83	....
Common Stocks with Surplus	64.92	99.07	27.92
Invested Capital	82.40	99.07	38.48
Less Depreciation Reserve	32.38	74.31	5.62
Invested Basis	$50.02	$91.23	$ 4.85

In this last tabulation an unusual treatment has been given. While the amount of invested capital agrees with the balance sheet, what has the depreciation reserve to do with this capital? If it was not intended to keep the reserve in condition for renewals and replacements essential to the continuous operation of the company, the amount of depreciation deducted from the gross plant value would be used to reduce the capital. Attention is directed to the relation of the reserve for depreciation to the common stock with surplus. The average condition shows that the depreciation reserve is equivalent to approximately one-half of the common stock with surplus, while the highest relation shows about three-quarters of the common stock with surplus to be represented in the depreciation reserve. With such large proportions of this part of the capital necessary for the continuity of the company it is important that the disposition of the depreciation funds be closely observed as to the arrangements to make increasingly larger proportions available to expend in modernizing the plant processes.

A brief glance at these balance sheets discloses that the depreciation reserves are furnishing more than the net working capital. With the present condition within the industry, question may well be asked as to how the mills can replace the source of net working capital so as to be able to expend any sizable propor-

tion of the depreciation funds. The composite relation of current assets and liabilities to the depreciation funds warrants observation:

Classification	Average	High	Low
Current Assets	$38.03	67.38	21.36
Current Liabilities	15.20	61.52	.93
Net Current Capital	22.83	64.87	*11.94**
Less Depreciation Reserve	32.38	74.31	5.62
Net Current Basis	$ *9.55**	38.47	*58.18**

*—Deficit or lack of funds of this description.

It is worth noting that so many of these companies are using their depreciation funds to furnish the working capital and in some instances have already expended a portion of the depreciation funds for other purposes.

To make this inquiry more complete a second arrangement of the balance sheets will be presented to bring out the facts as to the total funds other than the amounts reported as plant acquisition:

Classification	Average	High	Low
Current Assets	$38.03	$67.38	$21.36
Less Depreciation Reserve	32.38	74.31	5.62
Net Current Basis	5.65	39.40	*45.68**
Investments, Treasury Stock, Etc.	13.07	69.36	....
Deferred Expense and Other Assets.	.72	4.16	....
Other Assets than Plant	$19.44	$65.38	*$43.71**
Current Liabilities	15.20	61.52	.93
Contingent and Special Reserves	2.40	19.67	....
Other Liabilities than Capital	$17.60	$61.52	$ .93
Excess of Other Assets than Plant over Other Liabilities than Capital	1.84	54.12	*56.21**
Gross Plant at Book Value	80.56	143.81	34.62
Invested Capital	$82.40	$99.07	$38.48

*Deficit, or lack of funds of this description.

From this presentation it will be noted that the depreciation funds are in use as net working capital and are also partially distributed in Investments, Treasury Stock, etc. Some of these investments may be in subsidiary or other affiliated companies which are not readily converted to cash for replacements. In a few instances it may be that part of the depreciation reserve has been invested in additional plant facilities that will necessitate liquidation of that portion of the reserve by the sale of additional stock. With the operating results experienced in late years it is growing more difficult to arrange short term borrowing to liquidate the depreciation funds now reposing in the net working capital. The mills that have not been using bank loans are going to find it very difficult to obtain them now.

The ability to borrow money is not expressed by any arbitrary mathematics in connection with the balance sheet although talk may be heard about the so-called two-for-one ratio of current assets to current liabilities. While some bankers may have been so guided in the past, experience has demonstrated that such relations are often-times quite meaningless. At times such two-for-one relations may be maintained to hide bad inventories, poor collections, etc., and may accompany conditions of insufficient invested capital, possibly the result of prior mismanagement. Moreover, a little study of the tabulations just presented will disclose that the relation of the current assets to current liabilities should be effected by the depreciation reserve. While indications of immediate ability to pay off short term loans, even by borrowing from the depreciation funds, may be desirable to the banker, in the long run the continuity of the business should be more important.

For comparative study the balance sheets from the seventeen companies have been separately arranged and placed in order according to the declining proportion of Excess of Other Assets than Plant over the Other Liabilities than Capital. All balance sheet quantities are expressed in terms of $100.00 of the respective total assets. In the last two columns inter-relations are expressed: first, the current asset to current liability ratios that are of only temporary interest, and second, the invested capital to gross plant ratios that will signal out the companies that have an insufficient amount of own capital and are therefore basicly wrong in structure and especially subject to various financial difficulties. The relative strengths are disclosed by the statements shown in Table I.

When the general financial conditions of many textile mills are restored to a sound basis, the present uneconomic sales and production practices may be discontinued and a sound business condition will prevail again.

	COMMON SIZE PER $100.00 OF TOTAL ASSETS								RATIOS	
Mill Number	Current Assets	Reserve for Depreciation	Other Assets than Plant	Current Liabilities	Other Liabilities than Capital	Excess of Other Assets over Other Liabilities	Gross Plant	Invested Capital	Current Assets to Current Liabilities	Invested Capital to Gross Plant
1	$67.38	$28.04	$64.55	$ 2.51	$10.43	$54.12	$35.45	$89.57	$26.84	$ 2.53
2	26.84	30.82	65.38	2.74	22.41	42.97	34.62	77.59	9.79	2.24
3	47.24	7.84	39.40	.93	.93	38.47	60.60	99.07	50.79	1.63
4	24.08	5.62	42.25	7.43	7.43	34.82	57.75	92.57	3.24	1.60
5	27.07	20.18	37.01	6.84	7.22	29.79	62.99	92.78	3.96	1.47
6	44.18	13.82	45.35	17.42	17.42	27.93	54.62	82.58	2.54	1.51
7	66.77	35.47	31.30	8.02	8.02	23.28	68.70	91.98	8.32	1.34
8	22.58	7.43	15.15	11.53	11.53	3.62	84.85	88.47	1.96	1.04
9	42.96	67.31	9.31	4.45	15.74	*6.43**	90.69	84.26	9.65	.93
10	34.83	23.51	11.32	21.95	21.95	*10.63**	88.68	78.05	1.59	.88
11	50.58	57.64	*7.06**	5.31	5.31	*12.37**	107.06	94.69	9.52	.88
12	59.81	*74.31	*11.88**	3.12	3.12	*15.00**	111.88	96.88	19.17	.86
13	30.39	32.47	.87*	16.00	16.00	*16.87**	100.87	84.00	1.90	.83
14	31.07	46.10	*15.03**	26.68	26.68	*41.71**	114.63	73.32	1.16	.64
15	49.58	33.63	17.08	61.52	61.52	*44.44**	82.92	38.48	.80	.46
16	30.69	52.29	*21.60**	24.57	24.57	*46.17**	121.60	75.43	1.25	.62
17	21.36	67.04	*43.71**	12.50	12.50	*56.21**	143.81	87.50	1.71	.61
Total	$38.03	$32.38	$19.44	$15.20	$17.60	1.84	80.56	82.40	2.50	1.02

TABLE I

*—Deficit, or lack of funds of this description.

SOUTHERN TEXTILE ASSOCIATION MEETING *at* *Myrtle Beach*

The party at Myrtle's turned out to be a very successful occasion in every respect. The entertainment features were varied enough to make everybody have a good time, and the size of the crowd was in proportion to the opportunities for enjoyment. The serious sessions of the convention likewise were successful; reflecting another year of constructive activity on the part of the association, and providing the delegates who attended with much food for thought.

NO DOUBT several hundred people feel that Myrtle Beach is a wonderful place to have a convention, for we are sure that the song of all who attended this year's annual convention of the South ern Textile Association, held at Myrtle Beach, S. C., on Friday and Saturday, June 27th and 28th, is "I Had a Wonderful Time." Only a good time could have been had by those who attended, for there was golf on the beautiful eighteen-hole Ocean Forest golf course for the golfers, deep sea fishing for those who dared to brave the perils of the briny-deep, and many other diversions that would go to make for a good time. Then too, the discussions were very timely and pertinent.

J. O. Corn, superintendent, Pacific Mills, Columbia, S. C., was elected president, succeeding L. L. Brown, superintendent, International Shoe Co., Malvern, Ark.; T. W. Mullen, Rosemary Mfg. Co., Rosemary, N. C., was made vice-president; and D. S. Cook, agent, Pepperell Mfg. Co., Opelika, Ala., was elected chairman of the board of governors. Marshall Dilling, superintendent, A. M. Smyre Mfg. Co., Gastonia, N. C., was elected executive secretary, succeeding F. G. Cobb, resigned. The following men were elected to the board of governors: J. A. McFalls, superintendent, Ranlo Mfg. Co., Ranlo, N. C.; T. M. McNeill, superintendent, Monarch Mills, Union, S. C.; L. P. Duncan, superintendent, Inman Mills, Inman, S C.; and D. D. Towers, superintendent, Anchor Duck Mills, Rome, Ga.

The meeting was opened Friday morning by President L. L. Brown in the spacious ball room of the Ocean Forest Hotel. Following the invocation by Marshall Dilling, Colonel H. B. Springs extended a very cordial welcome to the visitors in behalf of Myrtle Beach.

The next highlight of the program was the annual president's address, by President L. L. Brown, in which he very ably and forcefully presented a true picture of conditions existing today. He also touched upon the steps that are being taken to readjust conditions to what they formerly were. His address follows:

President's Address

"Allow me to quote a paragraph from the address of your former president, Mr. Carl R. Harris, at Asheville, July 5th, 1929: 'It is difficult for our people to realize that the mills are passing through the most strenuous and trying period that they have ever faced, and are today struggling for existence, when all about us our major industries seem to be flourishing, and the country, as a whole, has for the past seven years been enjoying unprecedented prosperity.'

"Gentlemen, twelve months ago that was a true picture, and the three outstanding facts were: first, our people (employees) did not appreciate the difficulties, etc.; second, mills were struggling for existence; and third, other major industries were prosperous.

"But look at the picture today, it has changed somewhat, for now we have: first, our people appreciating the difficulties; second, our mills are not struggling for existence, but are gasping for air; and third, other major industries are suffering from the same malady that we have had for years.

"It has been said that the blackest hours of the night come just before the dawn, and I believe that I can see a few faint rays—the formation of the United States Institute for Textile Research, the 55-50 hours of work, curtailment to meet the existing conditions, employees realizing the seriousness of the situation, and better cotton seed being put in the ground, are all steps in the right direction.

"This association has long cherished the hope of having a textile research organization. Our ambitions were in common with those of many other textile associations and schools, but not one of us has ever been able to muster the sufficient funds to put the thing through. Now that we have all gotten together, laying aside all selfish interest, and acting in accord, we have at last secured an organization that means much to our industry. The United States Institute for Textile Research is now a reality, and what is more, it has sufficient funds at its disposal.

"Now that we have a textile research institute, we must not feel that our work is done, for in reality, our work is just begun. Each individual organization in this institute must feel that it is a part of the whole, and lend its unselfish, whole hearted support. Speaking of this association, I wish to express our most sincere appreciation to the Textile Research Council, Inc., for their willingness to give over to the new institute their charter.

"The 55-50 hour working schedule is a step in the right direction, in as much as it is better than operating 115 to 125 hours per week. Mr. Arthur Dixon, president of the American Cotton Manufacturers Association, in his address at Pinehurst on May 6th, 1930, expressed the hope and the belief that the plan for a 55-50 hour working schedule in the mills would soon be adopted by practically all manufacturers. I do not believe Mr. Dixon meant just exactly that, that all mills would adopt the 55-50 hour schedule, but that all mills that are now running day and night would adopt the 55-50 hour schedule.

"Abraham Lincoln wasn't far wrong when he said that no country could survive half free and half slave. Neither can an industry prosper with half on 55-50 schedule, and the other half on a 55-hour schedule. It is not for me to say which schedule is best, for frankly, I do not know, but this I do know, we are coming to one or the other. My hunch is that it will be the 55-50, and the survival of the fittest, with the fittest not much fit when it's all over. I say that is my hunch. Usually my hunches are wrong, and I pray to God that I am wrong again.

"*Curtailment.* Twelve months ago, to quote Carl Harris again, 'We are struggling for existence.' What are we doing today? Did you ever witness a boxing match? Well, as long as the boxers were struggling with each other there wasn't much danger, but just as soon as one of them could must up courage enough, step back and with a well directed upper cut to the jaw—why then the referee had some counting to do. 'Over-production' is lying on the mat, the 'trade' is doing the counting, and 'curtailment' is standing in the corner trembling, but with clinched fist and a determined visage. Who will win?

"*Labor.* That is our greatest asset here in the industrial South. I don't mean cheap labor. I mean intelligent labor. We are singularly blessed. We are even more democratic with our dealings with each other than we are at a presidential election, especially the last one. There is a tie that binds us from a common heritage. Blood runs thicker than water, and it will be a long time before some outsider can come in and tell us where to get off.

"We have been accused of being paternalistic toward our employees, and that the mill village has suppressed the social and spiritual development of our people. In reality they have been a God-send. You know too well the development for the past thirty years, and I would waste my time and yours to enumerate them. However, we have many problems that confront us, and we must solve them one by one as they come up. When we had only a few mills, we had few problems, but now that we have made an unprecedented change from agriculture to industry, we have many great problems. Our employees come from only one place (unless it's our neighbor's mill) and that place is the farm. As a tenant on the farm he was assured of food, clothing and shelter for the next twelve months. But what assurance has he today of these things when he comes to the mill? Full time employment means loyalty, happiness and development. Unemployment means distrust, sorrow, degradation and radicalism. It is a serious matter to discharge a person, but I tell you, gentlemen, the employment of a person is still a more serious matter. If you promiscuously and ruthlessly employ people when times are good, over-producing beyond rhyme or reason, and then when the inevitable does come, just as promiscuously and ruthlessly throw them out of work, we are going to have to account for it. I believe the time is coming when we employ a person that that person may expect at least 80 or 90 per cent employment over a given period. We insure our lives against death. Why not against unemployment?

"Next to employment, I consider cotton of major importance. It matters not how modern your equipment; you may have opening machinery a block long, but if you put dog tail and short staple in one end, you are not going to take out Good Middling, one inch staple at the other end. It just doesn't work that way. If you are going to milk a cow, you have to feed her. If you are going to make a good fabric, you have got to put good cotton in it. More superintendents and overseers have lost their religion, and some their jobs, over poor cotton than any other one thing.

"Who is to blame for all of this short cotton? Over 21 per cent was less than 7/8-inch in length last year. Why, the farmer of course. Well, I am not so sure about that. It is true there is an effort being made now to encourage the farmers to plant a longer staple cotton. But the mills have no one to blame but themselves for letting the farmer start raising half-and-half. I know it for a fact that here in this state of South Carolina, in a certain county that raises from 60,000 to 70,000 bales a year, where the price for Middling and better cotton, regardless of staple, was the same at every gin in the county. And who was buying the cotton? It wasn't the cotton merchants.

"The mills are not the only offenders, for in other sections of the cotton belt the country merchants have bought the same way and sold in 'hog lots'.

"Until each individual bale of

THE NEW PRESIDENT
J. O. Corn, superintendent of the Pacific Mills, Columbia, S. C.

cotton is bought on its own merits, there can't be a great improvement. I believe that the co-operative associations will be a great help to the farmer for this one reason.

"The speaker personally bought, graded and stapled 4000 bales out of one trade territory the past season. This is west of the Mississippi. The tongues of Babel are few in number compared to the many varieties, staple lengths, and character of cotton grown in that community. Here are some of the varieties: Rowden, Acala, Russell Big Boll, Mexican Big Boll, Mebane, Lone Star, King's Improved, Mortgage Lifter, Rucker, Trice, Delfas, Express, Delta Pure, Wilson, and Gin Run. On account of an ideal picking season, the grades were excellent but the staple ran the gauntlet from no staple to 1 3/16-inch, and the character from as fine as frog's hair to as coarse as pig's bristle.

"Another offender, partly responsible for the enormous amount of this short cotton, is our State Agriculture Colleges. About seven years ago, through their bulletins and county agents they recommended that the farmer plant the early maturing varieties. It has only been recently that the agricultural colleges have faced about and begun recommending the planting of longer staple. The past season the speaker paid 300 points difference between 13/16-inch and 1-inch cotton, and has had no difficulty in disposing of, at cost, a carload of registered, pedigreed seed to a farmer this Spring. The farmer is no fool. He has been misled, and by the very people who should have known better, the cotton buyer, the mills and agricultural colleges.

Left, L. L. Brown, Retiring President; Right, T. W. Mullen, New Vice-President.

"With improvement in staple and character, we also need a great improvement in ginning. There are more run-down, worn-out, dilapidated, 'one-horse' gins being operated, than there are good, up-to-date, well kept gins. These poorer gins cannot do good work, with dull saws, worn out ribs, and high speed. They injure the staple, as well as fail to remove all the lint from the seed. One cause of much bad ginning is due to the fact that there are so many different varieties of cotton raised in a single community. The ginner follows a shorter cotton with a longer one without changing adjustments and speed of feeding. This causes untold damage to the longer cotton.

"We need fewer, but better, gins. There was a time when each large plantation had and operated its own gin. Then came the time of a gin at every cross road. But now with good roads, trucks with trailers, we can haul cotton 25 miles to the gin as economically as we could haul it five miles with team and wagon over bad roads years ago."

Next on the program was a very interesting talk by Sydney P. Munroe, manager, Cost Section, Cotton-Textile Institute, Inc., on "Cost Figures and the Operating Executive." His talk is reproduced practically in full on page 1109 of this issue.

The final talk of the morning session was a very interesting and timely lecture by Mrs. Wanda K. Farr, associate cotton technologist, Division of Cotton Marketing, Bureau of Agricultural Economics, United States Department of Agriculture, on "The Structure and Development of the Cotton Fiber." We deeply regret that the following abstract does not reproduce the true essence of Mrs. Farr's interesting lecture, but it cannot due to the fact that it is not possible to reproduce here the helpful illustrations which she so ably presented by means of slide pictures:

The Structure and Development of the Cotton Fiber.

"A relatively large amount of information concerning the microscopic and ultramicroscopic nature of the cotton fiber has been accumulated by investigations in various parts of the world. The size of the individual fibers has placed the burden of proof with respect to their structural, physical and chemical properties almost entirely within the range of microscopic observation. Unmagnified, the fiber is an almost invisible, extremely sensitive structure, writhing and twisting when it is affected by slight changes in temperature or humidity, and so light that it is easily misplaced by the gentlest current of air.

"We might easily imagine that a particle of material with such a complicated behaviorism would possess structural properties of an equally intricate nature. Magnifications of 50, 100, 1000, or 2000 diameters convince us that our supposition has been correct. The microscope within its observational limits reveals a most intricate set of structural modifications. There are often large numbers of secondary spiral twists in addition to the larger spirals which may be seen with the unaided eye. These twists vary from extreme regularity in spacing and consistency in direction to an apparent chance occurrence and frequent complete reversals in the direction of the spirals. Higher magnifications reveal the presence of many cross-bands and folds in addition to the spirals.

"Fiber diameter is also observed to possess a high degree of variation. In addition to the wide range of differences existing between the fibers in general cross-sectional proportions, we find a gradual diminution in diameter from base to tip of the same fiber as well as a large number of constrictions, bulges, crimpings, etc.

"Cross sections of the mature fibers show the presence of stratifications in the thick walls. Twenty-five to fifty of these layers may be easily observed, the number depending upon the treatment to which the fiber has been previously subjected.

"Studies with polarized light have shown that these concentric layers are made up of still smaller units called 'fibrillae.' They are elongated spiral structures,

not unlike the fiber itself in general form and arranged with their main axis parallel to the long axis of the fiber.

"The microscopic findings concerning shape, concentric layering, chemical make up of the fiber layers, etc., are alone inadequate to promote our thorough understanding of the properties determining the 'character' of the fiber. Recent investigations have shown, however, that when a beam of X-rays is passed through a fiber or bundle of parallel fibers and allowed to fall upon a photographic film beyond, there is produced upon the film an image which makes it possible for us to visualize the molecular structure of the cellulose layers. The results obtained by this new method, enable us to answer more satisfactorily than heretofore many of the puzzling questions concerning the behavior and quality of the fibers.

"The first twenty-eight to thirty days of fiber-development are concerned with elongation alone. At the end of this time the deposition of wall material begins through the activity of the living cytoplasm inside the thin wall of the fiber. Layer upon layer of cellulose is deposited during the next twenty to thirty days, the 'quality' of wall material deposited depending apparently upon the cultural and environmental conditions to which the growing plants are subjected, as well as the variety of cotton which is being grown.

"An intensive study, by microscope and ultramicroscopic methods, of fibers of known origin, grown under controlled cultural conditions, offers one of the most helpful avenues of approach to a more exact conception of 'character' in cotton and of the various fiber factors involved. Additional knowledge of quality thus obtained will have an important place in a more scientific technique of utilization. In the field of cotton marketing such knowledge should lay a better basis for character standardization and character evaluation, subjects which for a long time have presented urgent and difficult problems."

Secretary Taylor next read a telegram from Ben E. Geer, president, American Cotton Manufacturers Association, expressing his regrets because of his inability to attend the convention. Following this the morning session was adjourned.

S. T. A. Banquet.

The banquet on Friday evening, June 27, was a delightful affair. After partaking of several delicious courses, President L. L. Brown, presiding as toastmaster, announced that a cessation of activities would be called in order to join in with fifty million others in listening in on two well known radio artists. A reproduction of the sketch which was broadcast by two young men from Charlotte, N. C., and the dialogue of which was written by Harvey Hill, associate editor, *Southern Textile Bulletin*, is given on page 1125 of this issue.

Paul Haddock, of Charlotte, N. C., chairman of the golf tournament, presented the following prizes to the winners of the golf tournament held on Friday afternoon:

Jack Alexander, of Gastonia, N. C., for first low gross, was presented a silver loving cup; W. B. Uhler, for second low gross, received a handsome driver; Sam Rakestraw, for first low net, received a putter; R. R. Dorset, for second low net, was the recipient of a putter; and the winners of the booby prizes were none other than Lee Kiebler and Jim Williams, who received golf balls for their valiant efforts.

Charlotte, N. C., was well represented in the putting contest for ladies, held at the Ocean Forest Country Club, for Mrs. Junius Smith, of Charlotte, won first prize, while Mrs. Ike Wynne, also of Charlotte, won second prize. Mrs. W. B. Uhler, Mrs. John Palmer, Mrs. Percy Howard, Mrs. A. C. Kimbirl, Mrs. C. L. Upchurch, and Mrs. P. W. Pollard also received prizes awarded by association friends.

Hal Kohn, of Newberry, S. C., was the after-dinner speaker. Following his talk, a large number of those present adjourned to enjoy dancing at the Myrtle Beach Pavilion.

Left, Walter C. Taylor, secretary; right, D. S. Cook, new board chairman.

Picture on Rayon.

The Saturday morning session was opened with a few brief remarks by H. W. Rose, southern sales manager, American Viscose Company, Charlotte, N. C., giving something of the background of the moving picture to be shown entitled "Romance of Rayon." Mr. Rose very clearly and interestingly outlined the four different methods of making rayon, and told of how the picture to be shown represented the Viscose process.

The picture, which showed the complete manufacture of rayon yarns, offered a very understandable presentation of the different steps in the manufacturing process. It was thoroughly enjoyed by a very interested audience.

Next on the program was a talk by Marvin Shirley, district manager of the Bureau of Foreign and Domestic Commerce, United States Department of Commerce, Charlotte, N. C., entitled "Co-operation on a Practical Basis."

Mr. Shirley outlined in detail the services available to textile manufacturers from various divisions of the Department of Commerce, especially referring to the Bureau of Census, and the Textile Division of the Bureau of Foreign and Domestic Commerce.

The business session was opened by a well defined and clear cut summary of the report of the activities of the Association, read by Secretary Taylor. Membership records revealed a gain of 19 per cent over 1929. Secretary Taylor also outlined in his report the plans of the Association for forming a hosiery section.

T. W. Mullen next read a set of by-laws, which he stated he, as chairman of the by-laws committee, would

like to submit to the association. President Brown pointed out that the major changes were:

(1) "Heretofore we have always elected two men from North Carolina on the board of governors, two from South Carolina, one from Georgia and one from Alabama, Mississippi, Texas and Virginia, and then two at large. Sometimes we would naturally be handicapped under that arrangement, so we saw fit to change them to read twelve, and not over four at any one time from any state. So that doesn't leave any one state monopolizing affairs.

(2) "Another change is in dues. Heretofore it has been two dollars for superintendents and one dollar for overseers and assistants, and two dollars for associate members. We saw fit to change it to two dollars for active members and five dollars for associate members, not that we intended to eliminate associate members, but membership in this association carries with it privileges for which in other association meetings you have to pay a registration fee that we have never charged. These are the two major changes in the by-laws."

Carl R. Harris next read the resignation of F. G. Cobb as executive secretary of the association, and president of The Arkwrights, Inc., which was accepted with much regret. Mr. Cobb's letter of resignation read in part:

"I wish to express my deep appreciation of the many honors you have bestowed upon me, during the past sixteen years, that you have favored me with continuous office, and to assure you that it has been a great pleasure to have worked with you in our struggles to make the Southern Textile Association the foremost association of practical textile men in existence.

"It has been my ambition to make a membership in the association the 'most valuable asset an overseer or superintendent could possess,' and I adopted this wording as a slogan in our book of proceedings, and exerted every influence to make that dream come true.

"The fact that today the Southern Textile Association is not only recognized by the mill presidents and treasurers, but recognition has come from such bodies as Bureau of Standards, Washington, American Society of Testing Materials, Philadelphia, U. S. Testing Company of New York, and textile associations of Europe, proves conclusively that the association has gained a foothold that cannot be shaken loose and is now in a position to affiliate with such bodies in a way which will command a hearing for the practical side of standards, etc., which will eventually be set up for textiles in the next few years.

"For example: As your secretary, I secured membership in American Standards Association, 39th Street, New York; National Safety Council, which is sponsored by the U. S. Department of Labor, and other societies and associations, and had personal interviews with their secretaries, in order to keep in touch with what was being done pertaining to textiles.

"This brings to mind a thought concerning the program that we seem to have drifted away from, as I merely wish to mention same as food for thought. During the several years that the arranging of programs fell to my lot, we always had one or more prominent mill presidents with us.

"For example, the minutes of June, 1915, show such men as Ellison A. Smyth, who spoke on "Relationship of the Treasurer to the other officials of the Corporation"; Capt. H. P. Meikleham, Massachusetts Mills, Georgia, who spoke about mill villages.

"May I suggest that you consider this feature again, as I am confident it strengthens our standing with our employers. For example, Mr. Hammett, president of Orr and other cotton mills, gave the Southern Textile Association one of its biggest boosts after meeting with us.

"At Wrightsville Beach, fourteen years ago, we inaugurated the questionnaire system, which seemed to give new life to our meetings, inasmuch as it gave definite information to the members, which they could take home with them and profit by. I have copies of these original questionnaires and will be glad to give them to your secretary to be placed in the archives of the association, as a matter of history.

"Out of this questionnaire system grew the sectional meetings, and they need no comment as you are familiar with the wonderful work which has been accomplished by them.

"Probably most of you have forgotten some of the struggles A. B. Carter and myself have gone through as your secretaries, but glance at the auditors' report of the meeting referred to above, showing cash on hand of $130.38 and this was more than some reports showed.

"However, with the loyal support of such men as David Clark, H. H. Boyd, T. B. Wallace, A. B. Carter, Alonzo Iler and others, we finally succeeded in building up an income for the association and about the biggest kick I ever got out of any of the work was when we put on a full-time secretary at $3,000 per year, and opened offices in Charlotte, N. C.

"I know you will pardon me for taking up this much of your time when you stop to realize that the Southern Textile Association work has been my hobby; my whole heart has been in the work and although I am now submitting to you my resignation as executive secretary, and president of The Arkwrights, I do want to retain my membership as long as I live, and I want each and every member of this body to feel that my heart is still with you and always will be."

James A. Chapman, Jr., vice-president, Inman Mills, Inman, S. C., announced that he had a resolution he would like to introduce, which read: "*Whereas*, individual mills of the industry generally have voluntarily subscribed to the soundness of a plan of a maximum running time of fifty-five hours per week for the day run and fifty hours per week for the night run; and whereas we understand some 24,000,000 spindles have adopted this running schedule; and whereas we believe this is a constructive step in the right direction, which will in time mean steadier employment, and whereas we think that this is also a humanitarian step:

"*Be it resolved, therefore*, by the members of the Southern Textile Association in session assembled at Myrtle Beach, S. C., Saturday, June 28th, 1930, first, that we do endorse and approve this action of our em-

(*Continued on page* 1126.)

Amos 'n' Andy (Not in Person)
Buy a Cotton Mill

THIS IS REAL entertainment. Harvey Hill, associate editor of the *Southern Textile Bulletin* wrote it, and a couple of boys from Charlotte "broadcast" it to the banqueteers at the Southern Textile Association meeting at Myrtle Beach. It is so cleverly done, and contains such subtle humor and incidentally some sound (?) philosophy, that it is reproduced here for the entertainment and amusement of those who did not attend the meeting.—THE EDITOR.

(With due apologies to Amos and Andy and the Pepsodent Company.)

As the scene opens Amos arrives at the office of the Taxicab Company, and finds Andy taking down the sign above the door.

"What you doin' Andy—tearing down dat sign? Whut's goin on heah?

"Don't bother me wid yo questions, Amos. He'p me git dis sign down."

"Whut for, Andy? Whut for? Answer me dat!"

"We gotta change de sign; it ain't no good no mo."

"Whut's de mattah wid dat sign? It looks all right to me, Andy. Let it alone."

"It wuz all right, Amos, as long as we wuz in de taxicab bizness; but now it ain't no good. We need a new sign."

"We's still in de taxicab bizness, ain't we, Andy? How did we git out?"

"We sold out, dats how we got out."

"Whut you mean, Andy, we sold out? I ain't sold nuthin. I own half of de bizness an I still got it."

"Amos, if you wuz a big bizness man like whut I is, you would understan it. As de president of de Fresh Air Taxicab Company, of America, Incorpulated, I is got legal rethority to sell, discompose, and otherwise git rid of all de assets, liabilities, good will and bad taste and all de other things what herein is misrepresented by. And I is done so as party of the fust, secunt and third parts."

"You is, huh? Well, if you done sold de bizness, where is de money? Half of it iz mine. How much did you git for de bizness?"

Taxicab Bizness as 'Stallment on Cotton Mill.

"Dere you is again, Amos. You don't know nuthin about bizness. Nothin sells for money no mo. Everything sells for 'stallments. I is done paid down de taxicab bizness as de fush 'stallment on a cotton mill.

"A cotton mill? What we goin do wid a cotton mill? We don't know nuthin about runnin no cotton mill, does we?"

"Corse we don't, Amos. De man I traded wid done 'splained dat. He said we didn't have to know nuthin about a cotton mill to git in de bizness. He tole me dat if all de folks in de cotton mill bizness knew anything atall 'bout nuthin, dey wouldn't be in de bizness. He said we wuzn't taxicab drivers no mo—we is mill magnets."

"We is, huh? Now ain't dat sompin? But, Andy, were'bouts is dat cotton mill we done 'stallmented on?"

"De mill is in Georgy."

"Doggone, Andy, way down in Georgy where I come frum? If you thinks I is going back to Georgy on 'count of dis cotton mill you is talking bout, you is just crazy, dat's all."

"Dere you go agin, Amos, dere you go agin. You knows mo and mo erbout less and less. We ain't goin to Georgy. We stays right here in New Yawk.

"Well, Andy, if de mill is in Georgy and we is in New Yawk, whut kin we do wid it?"

Way Run Mill in Georgy is to Live in New York.

"Well, Amos, de man 'splained dat, too. He say de best way to run a mill in Georgy is to live in New Yawk. De further away you is de bettah she runs. In New Yawk you meet wid all de buyers and dey is de folks whut us cotton mill men gotta meet. De mo buyers you meet de mo goods you can sell below cost. De man done 'splained dat de further you sell under cost, de better de mill man what you is."

"Below cost, Andy? What you mean? Splain dat cost to me. Whut is it?"

"Don't nobody know whut dat cost bizness is, Amos. Dat's whut de man done said. Cost is somepin de mill men guesses at and sells under. De man whut guesses de lowest and sells de most under, gits de prize."

"Whut's de prize, Andy?"

"Well, as I understans it, de mill man whut sells de lowest fur de longes time, gits a chance to liquidate. Dat's whut de man said."

"Liqui—what? What is dat, Andy? Souns like sompin to drink to me. Splain dat, will you?"

Liquidation Stuff Sounds Good.

"Dat's it—somepin like dat. De man never 'splained dat so good. But you is got de idee. Dis liquidatin stuff sho sounds good, and de man said dat mo mill men gits a chance to liquidate den anybody else. Dat's what make de cotton mill bizness so good. We could go for years an not liquidate wid de taxicab bizness."

'But, Andy, you ain't told me yet whut we is going to do wid dat cotton mill."

"Well, Amos, as I sees the sitiwation it is like dis. There is two things you can do wid a cotton mill. Fust, you can run it. Secunt, you can curtail wid it."

"Curtail, Andy? Whut do you mean by dat?"

"Dat's easy, Amos. Fust, you runs de mill and

makes all de stuff you can. Den when de buyers is done bought all dey can pay for, as fur under cost as you can guess to, dey resigns away frum de market. Den we begins to curtail. It don't mean nuthin, cept we knocks off frum work. We stops de mill, does a little fishin, plays a little golf an maybe goes to a convenshun."

"Splain dat about going to a convenshun, Andy."

"Well, a convenshun ain't nuthin but a place where de mill men gits togedder to talk."

"Whut dey talk about, Andy?"

"Oh, dey talks about 'problems.' Dats whut de man tole me. An he said de mill men got mo problems to talk about den anybody else, which makes it good. Dats why dey have so many convenshuns."

"Is talk all dey does, Andy?"

"Dats about all. 'Course dey eats heavy and plays a little mo golf. And, some of em brings along a little stuff in case dey want to liquidate some."

"Uh, huh. Now 'bout dis curtailin bizness, Andy. I like de sound of dat. How long do it last, and how long does we rest like dat?"

"Well, Amos, we curtails till de buyer gets hard up for mo goods. De mill men has to watch de buyers mighty close and jest fo it looks like de buyer is goin to have to pay mo den dat cost thing, de mill men rushes to make all de goods dey can and ketches up even wid de buyer agin. Den bofe of em is ready to start in agin right where dey wuz when dey started. If you wuz a bizness man you wood understan, dat can't nobody beat a system like dat. De man whut sold us de mill said dat system wuz de big thing in de cotton mill bizness. You can see he's right about dat."

"But lissen, Andy—sposen de mill men gits kinder keerless and does dis curtailin too long, an de goods gets to selling over de cost. Whut den?"

"Nobody knows what would happen den; its been so long since it wuz like dat everybody done forgot what did happen. But ain't nothin for us to worry about, Amos."

How Goin to Pay Next 'Stallment.

"Dat all sound pretty good, Andy, 'cept one thing. We is done paid one 'stallment on dat mill. How is we goin to pay de next one? Splain dat."

"I asked de man dat, Amos. I is always keerful bout details. He said dat one stallment on a cotton mill is plenty, cause de overhead would take keer of de rest."

"De overhead?"

'Sho, why sho. Den too, de man done said dat one stallment in a cotton mill wuz plenty for anybody to have."

"Well, Andy, since you done 'splained it all so good, looks like we done got into a purty good thing."

"Sho, why sho. You see Amos, I studied de propolition a long time. You know we ain't makin much money in de taxicab bizness and we is got a lot of worries. In de mill bizness we won't have nuthin to do and nuthin to worry about."

"I guess you is right, Andy."

"Check and double check."

Cost Figures and Operating Executive.

(*Continued from Page* 1110.)

$2,000 per week. Such savings, however, could not be indicated or obtained except through the employment of a consultant thoroughly familiar with the interior details of cotton manufacturing.

Over and above these various considerations, however, the feature which to my mind is of greatest importance to the operating executive is the effect which accurate prediction of cost will have on the selling policies and on the profits of the mill. Every individual connected with a mill, more especially the superintendent and overseers, prospers or suffers in proportion to those profits.

If we assume that a certain number of mills are operated under identical conditions as regards wages, hours of operation, market conditions and quality of management, it is self-evident that those mills in the group which have and use satisfactory cost methods will outshine the mills which do not, and if this condition could be extended over a sufficient period of time the mills neglecting their cost methods would find themselves in liquidation. Every one is very sincerely and deeply interested in the profits of the mill with which he is connected, and a sound cost system competently installed, carefully maintained, and intelligently utilized will very definitely help to reasonable profits.

In conclusion I would say that the increasing interest and discrimination shown by the mills regarding the importance of sound cost methods is very gratifying. The Institute is anxious to co-operate in every reasonable way to secure the wider recognition of such principles. We are right now shaping up recommendations designed to assist the member mills more or less directly in this respect.

Southern Textile Association.

(*Continued from Page* 1124.)

ployers in establishing uniform running time. Second, that we, who are employed by mills who have adopted this schedule, do pledge ourselves to see that this schedule of running is strictly carried out. Third, that we do urge all mills who are not operating under this schedule that they do immediately begin so operating."

The resolution was adopted by a unanimous vote.

After a vote of thanks had been extended to officials of Myrtle Beach for the many courtesies extended and to Secretary Taylor and his associates, Miss Wakefield and Miss Meyer, for their splendid work with the association and the success of the convention, the election of officers, which has been previously reported, was held.

Marshall Dilling, as president of the Arkwrights, next presented S. H. Sherman with the Arkwright medal, as an award for his unselfish efforts in completing work assigned to him in the form of a test. A. R. Marley was not present to receive the medal awarded him. The president's medal was presented to L. L. Brown, and the meeting was adjourned.

Front elevation of textile building at Auburn, now under construction.

New Textile School *at* Auburn

By Charles B. Ordway

THE ALABAMA POLYTECHNIC INSTITUTE at Auburn, Ala., a pioneer in technical education in the South and one of the recognized engineering institutions of the nation, has now entered the field of textile education. It was done by establishing a school of textile engineering during the 1929-30 session.

The School of Textile Engineering (now housed in temporary quarters) will occupy the new Textile Building which is being erected under the supervision of some of the country's leading architectural and textile engineering firms. The cornerstone was laid on July 14 this year. This building and equipment will be of the most modern and latest design.

The following courses will be offered by the School of Textile Engineering:

Four-year course—A four-year course leading to a Bachelor of Science in textile engineering. This includes a manufacturing option, fabric design option, chemistry and dyeing option, and business administration option; the bachelor of science degree being awarded to graduates of this four-year course.

Two-year course.—This is an attractive course for the older than average student, or the student who does not have the time for the full four years. He may take this course which leads to a certificate in textile engineering. The two-year course is similar to the first two years of the four-year degree course with the manufacturing option. It is so arranged that in the event the student returns to college after completing this course, he is allowed full credit and can finish the four-year degree course in two additional years.

Auburn will install the first completed school laboratory and equipment for manufacturing and processing of the various rayons. This will be on such a scale as to assist the graduates to become technical assistants in the rapidly-growing rayon plants throughout the South and nation.

The manufacture of full-fashioned hosiery is growing at a rapid rate and the writer knows that many Eastern manufacturers would gladly move their plants South if they could secure properly instructed technical graduates, whom they could bring into their organization for their proposed Southern units. To this end there will be a fully equipped department for full-fashioned hosiery instruction. This will give Auburn the added distinction of being the only school in the United States offering both theoretical and practical instruction on rayon manufacture and full-fashioned hosiery knitting.

The dyeing, bleaching, and finishing equipment of the school will be the result of the combined study and co-operation of chemical and dyestuff manufacturers. In conjunction with the School of Chemical Engineering the students will go into the study of manufacture of dyestuffs, bleaching agents, textile oils, tallows and finishing compounds.

Instruction in yarn manufacture will take up all established procedure of converting bales of cotton into laps, slivers, roving, yarns; and the operation and calculations that arise from actual mill practice. Weaving will start first on plain looms, then practical weaving on dobbies and Jacquard looms for pattern weaving. In the junior and senior years this includes a study of the various motions and theoretical calculations and constructions in silk, rayon, and cotton will be solved. The study of fabric analysis, concerns the dissection and data for the reproduction of fabrics. Testing of fibers, yarns and fabrics in a fully-equipped laboratory consisting of microscopes, reels, scales, single thread, skein yarn and cloth testing machines, etc., will be made. Microscopic study of artificial silks, yarns and fabrics will comprise the major portion of the work of this course.

Director Camp.

Auburn has written itself into the hall of electrical engineering fame with such well-known alumni as Dr. Miller Reese Hutchison, and Matthew S. Sloan.

It is well hoped that with a textile school she will also list herself as being a large contributor to the growing textile industry of the South.

The Auburn School of Textile Engineering was originated by Dr. Bradford Knapp soon after he became president of the Alabama Polytechnic Institute. Professor E. W. Camp, a leader in the textile profession, is head of it. The enrollment the first year was gratifying and a larger enrollment is expected for the 1930-31 session when the new building is ready for use.

CURRENT TOPICS

Talk of the Month

IT STILL REMAINS for the future to provide the remedy for cycles in business. Meantime, depressions have some use for they bring industry back to the consideration of sound fundamentals. They ever teach the lesson that business must be done with a long-range, rather than a year-to-year, perspective. In times of plenty one must forestall the famine. The high tide of prosperity is a danger point, for it is always the brink of depression. By the same token, the extreme of the ebb tide is the turning point toward the flood again. Between the two, however, is a time of buffeting which tests the principles upon which industry is working and the strength of its reserve.

Pertinent to the present, "the textile industry is now at the bottom of a long, strenuous downhill sinking spell, but cannot stay at the bottom of any decline," said A. D. Whiteside, former president of the Wool Institute, in June. He added that "the textile industries are in no worse position as far as their potential production capacity is concerned and their current demand than any other industry in the United States." This comment is significant, for Mr. Whiteside stated that textile leaders frequently declare the future to be without incentive for men of initiative and energy, thinking the case peculiarly unfavorable in their industry, whereas those in other lines say the same thing.

Cotton textiles, as all lines of industry, constantly have examples which belie generalizations to the effeel that they are no field for capable, foresighted men. Unless this industry recruits the best type of executive, naturally it will languish, but so far as one is able to appraise the present, cotton manufacturing has been adjusting itself to a point of balance which compares well with all other lines. Indeed, it appears to be perhaps in a better position than most for going ahead as soon as the spirit of depression begins to leave the buying public. This applies particularly to the matter of balance between production and consumption.

In looking ahead, however, there is a new adjustment in industry to which the textile trade must give close attention if it is to keep step with the rest of the economic world. The fundamentals of sound economics do not change, but the appreciation of them advances as teaching of business spreads. The case was presented ably to the National Association of Purchasing Agents recently by an economist of note and head of a large industry, Alvan T. Simonds of the Simonds Saw & Steel Company, in predicting another three-year cycle of advance in all lines, to begin sometime between now and the end of the current year. He said:

"Schools of business administration are training the business executives of tomorrow. Until we have a sufficient leavening of this kind of training, we cannot hope to solve the major problems that are facing American business today. For instance, the most common tools used by every business are capital, credit and money, three entirely different entities. When I spoke to many business men in 1920 about the shortage of credit, I was met by the reply that there was plenty of money in the banks. There was plenty of money in the banks of Germany when the mark became worth next to zero.

"There was plenty of money in the banks of the United States in November; but unfortunately even our most successful wealth accumulators understood almost nothing about the general principles and theory of money and credit and it is quite impossible to teach them algebra if they have not had a previous course in arithmetic. Then we have still another large group of the ignorant who say that times have changed and that Adam Smith and his teachings, because they are 125 years old, are all out of date.

"What we need now to insure better business is training in economics and the theory of business, together with a knowledge that the days of hunch and bunk in forecasting business are about over. The business executive of today must be trained to think and to realize that the successful enterprises are going to be those that are based on the application of the right theory."

It was pointed out early in July that the turn of the business cycle had once more brought cotton close to the level at which it has found bottom in times of depression since the war. For many weeks now the spinners of the country have realized that cotton was at bargain prices, with little room left for further decline and the certainty that buying was not a dangerous proceeding, even if some moderate additional reduction should occur. The early part of the summer also brought impressions from the cotton-goods market that the most acute stage of the depression was passing. Bargain time has been seen in goods as in raw material.

Yet the industry is subject to outside influences and, as it has taken a long time for the country, nay the world, to recover from demoralization in commodities, stocks, credits and other elements of depression, the outlook may take considerable further time for clarification. The wearing away of the surplus of overproduction of a so-called prosperous time like 1929 is delayed as consumers retrench and the permeation of the public mind with the mob psychology of "bad times" aggravates the situation.

On the other hand, people constantly wear clothes and keep their homes decorated with fabrics. Gradually the replacement demand will develop toward normal and the cotton industry should reap the double benefit of starting from a healthy stock posi-

tion and with a popular vogue for its output. George A. Sloan, president of the Cotton Textile Institute, not long ago cited figures to show that "this increased popularity has enabled that branch of the industry concerned with style demand to suffer relatively less than other branches of the industry in recent months." He also indicated that American styled fabrics have gained ground in competition with imported foreign goods.

In this connection we are pleased to find the cotton industry finally taking advantage of the government-granted privilege, to which attention was called in this column last January, of combining freely for effective competition against foreign goods in the field abroad. The alliance of seventeen units from the cotton manufacturing, converting and merchandising groups for the formation of an export association under the Webb-Pomerene Act is encouraging for a strong bid for the foreign markets. The groundwork has been carefully laid, as a joint committee for action was formed only after the proposition had been considered several months by the various groups.

Finding New Uses for Cotton.

This summer's meeting of the furniture buyers of the country emphasized anew how imperative is alertness among textile producers to what is developing among users of fabrics. The trend of developments in public taste for furniture is of paramount importance to the producers of cotton, since art in decoration of the home is demanding a harmonizing of fabrics with the other appurtenances of the household. The general ensemble is sought in the dress of the house as it is in the dress of the individual. Thus the manufacturer must constantly take cognizance of the inter-relationship of his industry with other industries. Incidentally, where this idea of ensemble is developed, in decorative fabrics or clothing, it should be conducive to the sale of goods on the basis of special appeal which should make price the secondary rather than the primary consideration.

More about Mergers.

Discussion of the merger question no doubt will continue and it is well to bring to light as many phases as possible thereof, for the individual manufacturer to weigh them all and perhaps avoid thereby a pitfall from too narrow a view. There is considerable comment here and there to the effect that the decentralization of population and the scattering of manufacturing in small units will follow the great spread of power and modern means of communication in its various forms. That may be a look far into the future, but the arguments are worthy of consideration since whatever changes manufacturers are considering today also are an attempt to accommodate production to conditions of a new day.

That does not dispose of the matter by any means and in fact the spreading of industries into small units may be accomplished in the chain way—a central organization directing a group of small factories strategically located in relation to markets, transportation, etc. But it still appears that cotton manufacturers are not fully sold on the idea that merging is the best way out of depression and the head of a sound organization must look well before he leaps into a consolidation with others. It is a big question even now whether the chain in distribution works such advantage over the individual organization as has been claimed for it and the parallel may hold in industry.

No doubt with its wide ramifications of production, the cotton industry is one lending itself to a diversity of units from very large ones in which mass output is essential to small ones wherein a specialty can be marketed to advantage. The merging of various interests in the former may be found advisable and maintenance of individuality the suitable course for the latter. An interesting development in the case of important single, though perhaps not to be classed as small, units is the establishment of direct selling connections. The move in this direction by the Wamsutta Mills of New Bedford recently and the announcement of a similar action by the Nashua Company to take effect in October are the latest notable examples.

Other changes are making which show the possibilities of progress in various ways in the cotton industry. The big merger constituting the Berkshire Fine Spinning Associates, for example, indicates what the large organization may do to promote that raising of standards of cotton production which is deemed so essential to the welfare of the southern planter. It has long been recognized that the interests of the cotton grower and spinner are mutual. Here is a move to demonstrate what may be accomplished by bringing the two activities under one head, an example of wide extension of the horizontal merger.

Purely in the realm of cotton handling is another merger suggestive of evolution in the industry. The merger of Cooper & Brush, Inc., of Boston with the Newburger Cotton Co., Inc., of Memphis, brings under one organization the Cooper & Brush-Newburger Cotton Co., Inc., of Memphis—one well known unit of merchandising and another prominent in the buying and general handling of cotton. This new company, a $1,000,000 organization, combines sales agencies in the textile centers throughout the world and buying agencies in the cotton belts of America, Egypt, China, India and Brazil.

Merchandising continues to contribute its difficulties, aside from the matter of supply and demand. Mills are provoking complaint from wholesalers and wholesalers as well as mills from retailers, through digressions in sales policies. Whether mills can go direct to large retail buying units and not discriminate against the wholesaler, as well as the customer of the latter, is the question which arises. In like manner, the ethics of both manufacturer and wholesaler in dealing direct with the consumer is questioned.

This may be the manufacturer's problem and it may be the distributor's. Naturally the producer of goods has faced pressure from the buying organiza-

tions of big chains—which buying groups obviously are tantamount to wholesale units. To combat this, the wholesaler and the retailer who continue to depend upon him may combine forces to equalize competition. That of course is their problem. But the Wholesale Dry Goods Institute holds it to be economically unsound for a manufacturer who depends on the wholesaler to distribute from 80 to 90 per cent of his production to sell from 5 to 10 per cent at cut prices to retail organizations direct.

Certainly for mills depending so largely upon wholesalers, action which is demoralizing to the latter and their retailers is unhealthy. Manufacturers who cater to a variety of outlets have a mutual interest in the successful prosecution of business by them all. The National Retail Dry Goods Association voices objection to an alleged increase in direct selling to consumers by both manufacturers and wholesalers. Skipping a step in distribution should be considered carefully and undertaken with due regard for the consequences. Possibly it can be done without discrimination. It is a sore spot in more than one business.

Textile Research Organizations

THE PASSAGE of the Merritt Bill made available a fund of over $1,200,000 left over from the Textile Alliance, as a result of the sequestration of German dye patents during the war, and President Hoover appointed a committee of three textile men, who, with Secretary of Commerce Robert P. Lamont and Secretary of Agriculture Arthur Hyde, will be charged with the administration of this fund.

Stuart W. Cramer, president, Cramerton Mills, Cramerton, N. C.; Franklin W. Hobbs, president, Arlington Mills, Lawrence, Mass.; and Henry B. Thompson, president, United States Finishing Company, New York City—these are the three representatives from the cotton, woolen and finishing groups of the industry, respectively, who with the two government representatives will administer the fund which has been turned over to the Textile Foundation. The foundation is officially authorized to use the fund in research, and to accept donations, bequests, etc., from private individuals and organizations.

At about the same time, the United States Institute for Textile Research Incorporated was formed, which will take over the articles of incorporation of the Textile Research Council. The Institute was formed by various interests in the industry in connection with research in the production and use of textile materials. At its organization, the Institute adopted a resolution endorsing the Textile Foundation, and urging that the fund be kept intact, only the income being used.

It was recently announced by P. J. Wood, acting chairman of the Institute, and C. H. Clark, acting secretary, that the committee on by-laws would report at a meeting of the preliminary board of directors of the Institute on July 29th to be held for the tentative adoption of by-laws and temporary organization of the Institute.

Textile Export Association Formed

THE FORMATION of an association under the provisions of the Webb-Pomerene Act, to be known as The Textile Export Association of the United States, was consummated by representatives of a number of firms interested in the export of cotton textiles, at a meeting held last month in the rooms of The Association of Cotton Textile Merchants of New York.

This was the second meeting of representatives of cotton exporters interested in organizing for the purpose of pursuing such group activities as are permissible under the provisions of the Act. It was stated by Floyd W. Jefferson of Iselin-Jefferson Co., who presided, that the activities of the new association probably will be confined, for the present, to bringing about uniformity in terms of payment on exported textiles.

At the first meeting held on July 1, after the project had been the subject of consideration for several months by special committees representing The Cotton-Textile Institute and The Association of Cotton Textile Merchants of New York, a definite recommendation was made that such an export association be formed. A proposed constitution was presented at the meeting for consideration of those who had signified their willingness to become members.

At the second meeting held on July 15th, it was moved and unanimously carried that the constitution be adopted after a discussion which resulted in several minor changes being made. The first meeting of the new association was scheduled for August 5, at which time the names of the proposed board of directors were to be presented by the nominating committee for approval of the members. It was stated that the following firms have signed thus far:

Amory, Browne & Co.; Bliss, Fabyan & Co., Inc.; M. C. D. Borden & Sons, Inc.; Brune Pottberg & Co.; Iselin-Jefferson Co.; Neuss, Hesslein & Co.; Prince, Lauten & Co.; J. P. Stevens & Co., Inc.; Turner, Halsey Company; Wellington, Sears & Co., and Woodward, Baldwin & Co.

The new association will shortly include in its membership many other firms among commission houses, converters and independent exporters, inasmuch as a number of representatives who attended the meeting stated that while their principals are heartily in accord with the plan to form an export association, authority to sign as members immediately had not been delegated to them. Just as soon as such formalities as the appointment of a board of directors have been taken care of, a committee will be appointed for the purpose of working out uniform terms of payment on foreign shipments.

Of course there are overseers and superintendents who get results even if they do lose their temper. But—

The sun gets results without indulging in explosions. It produces results by the exercise of its great drawing power. The most successful overseer or superintendent is a drawer, not a driver.

What the Southern Mills are Doing

THE CANTON COTTON MILLS, Canton, Ga., recently installed two more sets of Breton Minerol process eq ment. This completely equips their mills.

National Dixie Mills, Newnan, Ga., who manufacture Dixie Twist Suitings, will also specialize on a tropical worsted known as "cable twist," which has been favorably commented on. Because of large orders, this company reports, a night shift will be put on.

Southern Mills Corp., of Munford, and Oxford, Ala., recently purchased a roll covering unit from Armstrong Cork & Insulation Co., to take care of cork rolls being installed in their mills.

Swift Spinning Mills, Columbus, Ga,, have purchased roll covering unit from Armstrong Cork & Insulation Co., to aid in the installation of cork rolls which they are putting in their mills.

Willingham Cotton Mills, Macon, Ga., recently completed installation of humidifiers in the spinning room. The humidifying equipment was furnished by the Bahnson Co., Winston-Salem, N. C.

Fiske Carter Construction Co., of Greenville, S. C., have been awarded contract by Dwight Mfg. Co., of Boston, Mass., and Chicopee, Ala., to remodel plant. They also have contract for enlarging power house, construction of towers, etc.

Sewers, pipes and septic tanks which are being installed for 130 houses in the mill village of Eagle & Phenix Mills, Phenix City, Ala., are practically completed.

It has been reported that the Dwight Manufacturing Co., Alabama City, Ala., have placed orders for 62,000 spindles which are to be used for replacement of a similar number of present spindles. The new spinning frames are of the latest improved, wide gauge type, equipped with Whitin Casablancas long draft equipment. Instead of operating by both steam and electric power, as has been the policy of the company, it is stated that the entire plant will be changed to electric power only.

Hannah Pickett Mills, Rockingham, N. C., recently installed 200 additional new looms. This brings the total in the company's two plants up to 2,700.

The Balfour (N. C.) Mills have purchased oil spraying equipment for oiling their cotton. The equipment was purchased from Borne Scrymser Co., New York.

A line of corduroy has been added by the Cone industries, Greensboro, N. C., to their group of textiles. Announcement was recently made that the new fabrics are being woven at the Tabardrey Mfg. Company's mill, and finished by the Granite Finishing Works, both located at Haw River, N. C. Much new machinery had to be imported to take care of the corduroy weaving, Mr. Cone stated.

The Myrtle Mills, Inc., Gastonia, N. C., have had their old oil spraying equipment replaced with new Borne Scrymser Co. 1930 model.

The Boger & Crawford Spinning Mills recently completed installation of 5,000 mule spinning spindles for spinning very fine yarn. They now have them in operation.

The Carolina Rayon Mills, formerly known as A. M. Johnson Rayon Mills, Inc., located at Burlington, N. C., will resume operations this fall, it has been announced. During the several months which the mills have been shut down an additional plant has been built, which practically doubles the capacity of the mills.

Wildan Mfg. Co., Cherryville, N. C., has completed installation of combing equipment and is now running full time for both single and ply yarns.

Dilling Cotton Mills, Kings Mountain, N. C., have purchased 74 new looms. They manufacture both silk and cotton goods.

Diamond Cotton Mills Co., Salisbury, N. C., recently built a modern machine shop and installed the latest improved Foster winders.

The Union Bleachery, Greenville, S. C., recently installed a steam turbine, furnished by the Allis-Chalmers Manufacturing Company.

Union-Buffalo Mills Co., Fairmont, S. C., is equipping its Fairmont Division with an RX model Breton Minerol process, oil spraying equipment, furnished by Borne Scrymser Co., New York. This places all of the Fairmont Division mills on oil spraying.

Watts Mills, Laurens, S. C., recently completed installation of additional cards and combers and overhauling of the carding department.

An expansion program, which it is reported will involve an expenditure of $200,000 will be carried out during the next nine months by the U. S. Rubber Company, for increasing the capacity of the Winnsboro (S. C.) Mills, which it operates. The tire cord production will be increased 17 per cent by the extension, officials announced.

Southern Public Utilities Co., of Charlotte, N. C., recently bought from the Aragon-Baldwin Cotton Mills, Whitmire, S. C., the plant used by them for generating the power for their electric lighting system.

Ladlassie Mills, Anderson, S. C., are installing 1 warper and 12 winders for handling rayon, as they are planning on making a considerable increase in the production of rayon fabrics.

New England Southern Mills Corp., Pelzer, S. C., will install a complete sewerage system for 1,100 dwellings in their village at a cost of about $250,000.

The new building of the Trenton Mills, Inc., Trenton, Tenn., was recently reported rapidly nearing completion and it was the belief of the contractor that installation of machinery could start around the latter part of July. The new building is as nearly fireproof as a building for its use can be made and is both well lighted and well ventilated.

Mente & Co., Inc., New Orleans, are having plans prepared for $150,000 bagging plant in Houston, Texas. Contract has been let to J. B. Rannenbaum for remodeling present buildings at a cost of $16,000.

The Rockford Mfg. Co., Rockford, Tenn., are installing new 1930 Model R spraying equipment, which was furnished by Borne Scrymser Co., New York.

New England Mill Situation

July 18, 1930.

FINE GOODS MARKETS have afforded only a limited amount of business during the past month, due in part to a seasonal dullness and in part also to the inability of buyers to determine just what they want for their spring lines. Current comment is to the effect that even the fall season's business has been of very limited scope, and there are some divisions of the market ordinarily benefiting by fall demand that have practically failed to materialize at all. This applies to certain types of fancies restricted in the bulk of production to the New England area.

The New England picture has consequently not been very bright during the past month, although toward the close of the period signs of betterment were apparent. Chief of these is the considerable reduction in fine goods stocks that industrial leaders declare has taken place. A curtailment schedule calling for between 60 and 65 per cent of normal average was introduced in the fine goods trade, subject to "policing" of mills to see that they followed this. On the whole, the "policing" has been unnecessary, inasmuch as the average fine goods mill in New England is currently running below this level. There are many mills that state they are operating at 35, 40, or 50 per cent of their capacity.

Thus with a low production, planned to continue until the end of the year, the moderate call for goods has resulted in a constant reduction of spot stocks, which, manufacturers say, is certain to result in some betterment of prices before very long. Prices are abnormally low, and in connection with them the comments of one fine goods manufacturer are enlightening. This producer ran up against the 10½ cent price on 38-inch 72 x 100, 6.25-yard combed plain goods and told a buyer that, given the cotton, he could not make money at this level. Checking up this statement later, he

found that, aside from cotton cost, it would cost him 9 cents to manufacture the goods, and with cotton, 12½ cents was his cost. A subsequent checking with the Cotton Textile Institute's costing department showed that his mill was a low cost one on this fabric.

Effect of Tariff.

Another point in favor of the mills in New England as well as fine goods producers generally lies in the new Hawley-Smoot tariff schedules. The average duty on cotton goods becomes 43.58 per centum ad valorem, as against 40.26 per centum under the Fordney-McCumber tariff. Greater protection is further insured finer cloths, progression of rates relative to fineness being more rapid and amounting to .35 of 1 per centum per "count" as against .25 of 1 per centum in the old tariff. Unbleached goods of lowest count under the new bill are 10.35 per centum ad valorem against a previous 10.25 per centum, and on 90s cloths 41.50 per centum becomes the rate as against a 30 per centum top duty on cloths of 80s up previously. The maximum on bleached goods is raised from 33 per centum to 44.5 per centum, and on printed, dyed, and colored cloths is raised from 40 to 47.5 per centum. Mixed fibered cloths are also benefited, from the figures worked out by manufacturers, and the compensatory duty on cloths of Egyptian cotton has already been widely discussed.

Employment conditions in the textile manufacturing centers of New England have improved under recent date, according to limited advices available, although in many cases this may be due more to industrial diversification than to the textile industry which is probably employing fewer at the moment. This must, however, be considered in any estimate of New England production strength and the ability of communities to hold their workmen despite textile depression. Some of the new industries pay less than the textile mills, which may be regarded as an assurance of a return of workers to the textile mills on a better turn in business. Unemployment in New Bedford has recently been estimated at 3.7 per cent of the population. Lawrence and Lowell have also reported some improvement. Returns from other cities are incomplete.

More Merger News.

Possible merging of the Whitman Mill in New Bedford with some group is now mentioned, and reports are to the effect that the Berkshire Associates are interested. The mill is now operating 3,500 looms, according to George W. Pope, the treasurer. The spinning mill has been closed down under curtailment schedules. On the other hand, some refinancing may be undertaken instead of merging the mill, although brokers identified with Berkshire interests are credited with being recent heavy buyers of Whitman stock and notes. Comment is to the effect that the Whitman would fit well in the Berkshire organization.

Endorsement of the Bancamerica-Blair Corporation's merger by Walter Langshaw of the Dartmouth mill has recently been publicly given. However, few developments have occurred in this direction, and it is believed that the merger will not be pressed before fall. Representatives of the banking organization are understood to have tentatively interested other mills to fill in the gap caused by the withdrawal of the Grosvenor-Dale Company and Warren Manufacturing Company from the proposed merger. This organization is now said to be very definitely withdrawn with no intention of returning.

Union Cotton Manufacturing Company, one of Fall River's oldest and largest mills and for years a successful organization, may liquidate. Directors have recommended liquidation to stockholders. The mill is running about 40 per cent of capacity. Last October's annual statement showed quick assets exceeding liabilities totalling between $30 and $40 per share. Subsequent repairs have necessitated considerable expenditure. The mill is capitalized at $1,200,000, in three units, with 109,144 spindles and 3,030 looms, and employing 650 at capacity. It has paid 6 per centum since the war, substantial dividends previously being paid, but dividends of the past two years have been out of surplus. Edward L. Hinchey is now treasurer.

In Taunton, Mass., Winthrop Textile Corporation, a new firm, has bought the Winthrop Cotton Yarn Company plant. Avon Curtain Corporation, newly incorporated, of Fall River, is entering business with $40,000 capitalization. B. D. E. Rayon Manufacturing Company of Boston, has been incorporated to manufacture and deal in rayon with $1,000,000 authorized capital. Incorporators are J. J. Delehanty of Hartford, Conn., J. A. Petitti of Randolph, Mass., and C. A. Poirier of Arlington, Mass. Curtain Craft Company has been incorporated in Boston to manufacture curtains and draperies.

Sterling Silk Underwear Mills, 100 shares no par, has been incorporated to manufacture underwear for men, women and children, and will occupy part of the old Pemberton Cotton Mill in Lawrence, Mass. Tax abatement cases of the New England Southern Mills against the City of Lowell, Mass., are still pending. Lancaster Mills announced retirement July 1 of the remainder of the $1,500,000 notes of the corporation held by Amory, Browne & Company. All but $475,000 of the notes had previously been paid, $600,000 being paid off during June. In August such machinery as was not recently disposed of at private sale will be sold at auction. Amoskeag recently bought machinery from Lancaster's mill in Clinton, Mass.

Activity among printers in New England, while somewhat quickened, has not improved much. Sales of finished goods have been better, and stocks of unfinished goods have been held at a low point. There has been some curtailment. George P. Gilmore, plant engineer of American Printing Company, Fall River, recently resigned.

The National Association of Cotton Manufacturers is planning its annual meeting for early October at Poland Springs, Me. Philip Dana, of Westbrook, Me., first vice president, has been appointed chairman of the program committee. Andrew Raeburn of New Bedford, textile leader, has been re-appointed a member of the Massachusetts Industrial Commission by Gov. Allen, who also has nominated James Sinclair of the Charlton Mill, Frank L. Carpenter of Davis Mill, John S. Brayton, William Hopewell, and George D. Flynn, Jr., as trustees of Bradford Durfee Textile School, Fall River.

Among New England machinery manufacturers the large machinery order from Dwight Manufacturing Company of Alabama placed with Whitin Machine Works of Whitinsville, Mass., is outstanding. Niles Machine Company of Lebanon, N. H., has moved into the Lamson Company plant in Lowell, Mass. Davis and Furber Machine Company, textile machinery manufacturers of North Andover, Mass., recently shut down for two weeks.

Cotton Comment *by Beer & Co.*

New Orleans, July 19th, 1930.

COMPARED WITH about one month ago, or since issuance of our previous review, new crop deliveries show no appreciable change in value, but the July position, which, at one time, commanded a premium of near $10 per bale on October, now shows a discount under October of about $1.70.

Recently Washington advised: "Advances will be made on this year's wheat and cotton crops when needed, Commissioner C. C. Teague, of the Federal Farm Board, declared. No plan for financing has yet been formulated by the board, but Mr. Teague said loans will be made on market conditions rather than on the flat rate. Advances on former crops at the market prices, Mr. Teague pointed out, were made as an emergency measure. Future loans will require a margin of safety."

Subsequently, Mr. Carl Williams, of the Federal Farm Board, was credited with stating: "Cotton held by the Stabilization Corporation will not be allowed to come into competition with 1930 crop in any manner to unduly depress prices."

(*Continued on page* 1149.)

New Textile Equipment and Publications

WALL SECURES PATENT ON NEW HARNESS SHAFT.

A patent has been issued to William E. Wall, overseer of weaving, No. 2 Mill, Lancaster Cotton Mills, Lancaster, S. C., covering a new harness shaft for looms, which is illustrated in the accompanying photograph.

The construction of the new harness will be clear to the mill man upon an examination of the photograph. It will be noticed that an extra shaft section is used at the top and bottom of the harness, around which the harness is placed instead of being fastened to the regular shaft which carries the screw eyes. This extra shaft at the top and bottom which carries the harness, is held to the supporting shaft by means of patented metal clips at the ends, which allow for a slot between the two sections of the shaft.

With this arrangement, it is pointed out, the heddles are capable of limited movements upon the inner shaft section, due to a slight rolling action of the heddles upon the inner shafts. The cords attached to the ends of the ribs, and secured to the inner shaft sections, limit the relative movement of the heddles.

Mr. Wall points out that in this arrangement, the screw eyes are in the outside top and bottom shafts, and not through the shaft onto which the harnesses are made, so that they do not rust on the harnesses nor put any undue strain on them at the screw eyes, nor cause the harness eyes to break at the screw eyes.

He further shows that the harness are slack on the shaft, with no undue strain on them, which, he points out, lets weak yarn weave through, with a reduction in stoppage since this strain is off of the harnesses and the yarn. It is pointed out, according to Mr. Wall, that these harnesses will improve weaving, especially on high sley counts and heavy weaves.

The Atlanta Harness and Reed Manufacturing Company, Atlanta, Ga., who are manufacturing this produet, have made extensive tests with this shaft. It will be in operation on a loom exhibit at the Textile Exposition in Greenville in October, it is announced.

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TENSION CEMENTING.

The modern, scientific "Tension Cementing" process of Flat Leather Belt making, perfected by Graton & Knight Company, Worcester, Mass., is, according to the company, a wholly new and revolutionary development in the leather belting industry.

The company says that for this process a unique type of belt making machinery (patents applied for) was invented by the Graton & Knight, engineers.

The company claims that for over two years this new belting has been thoroughly tested under all kinds of operating conditions in various industries and the manufacturers assure leather belting users that big savings in maintenance, operating and production costs can be effected by using this new leather belting.

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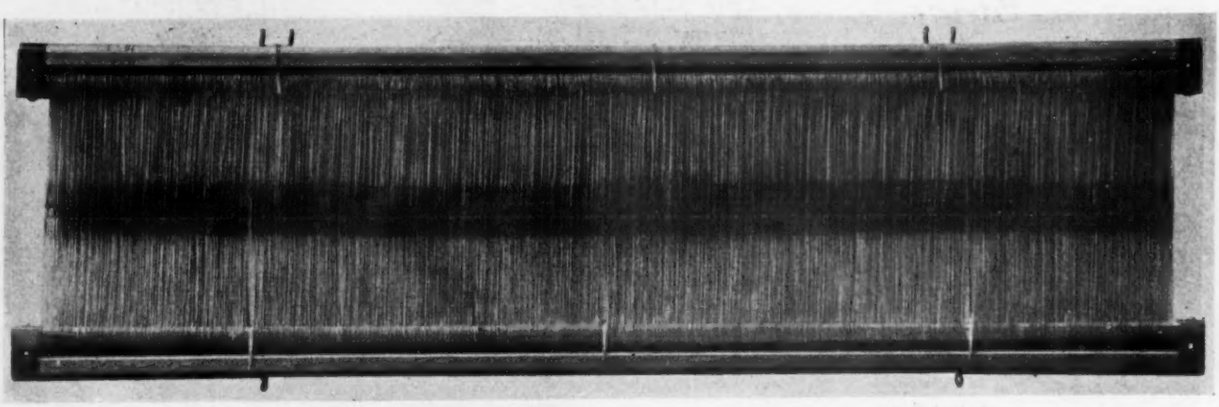
A COMBINATION SCRUBBER-ABSORBER.

Although power operated scrubbing machines have been in profitable use in textile mills for many years, there has been an increasing demand for a practical machine which would scrub a floor clean, pick up the dirty emulsion simultaneously, be operated by one man and accomplish the work in no more time than present methods, according to the Finnell System, Inc., Elkhart, Ind.

New Scrubber-Absorber.

The company states that after several years of research and experimental work it has introduced to the trade a new Combination machine that not only scrubs and absorbs in one operation, but one that allows a single operator to cover twice as much floor area in a given period of time as a mopper can get over with an ordinary mop.



Wall Harness Shaft. (End View Shows Four Shades on Two Shafts.)

AUTRY'S AUTOMATIC WEIGHT CONTROL.

The variation in weight of picker laps caused by a change in the amount of moisture in the cotton, due to a change in atmospheric conditions, has become more or less generally recognized within the past few years. Previously, when picker laps were held to a "standard" total weight, without regard to the varying moisture content, uneven numbers and weights invariably developed later on, because the change of lap weights represented more or less moisture instead of more or less stock in the lap.

As a result of investigations along this line, many different methods of allowing for such changes in weight as are occasioned by a change in moisture content have been developed. Most of these are based upon either adding or taking off weights on the lap scales to compensate for such changes; or else to correct, on the dial of the scales, by changing the "standard" to which the laps are weighed—both based upon a calculated scale of gain and loss of moisture in cotton in accordance with increases and decreases in the amount of relative humidity in the picker room.

The most recent method for this purpose that has been announced is the Autry automatic weight control, invented and patented by D. J. Autry, overseer of carding and spinning, Ranlo Manufacturing Company, Gastonia, N. C., and shown in the accompanying illustration. This new device has the added feature of automatically moving the position of the pointer on the lap scale dial; whereas some methods merely indicate the change to be made, and the pointer is moved manually.

The inventor explains that, as indicated in the accompanying photograph, the device is attached neatly to the right-hand side of the lap scale. To offset the weight added by the control to the right-hand side of the scale, a small weight is attached to the left-hand side of the scale to keep the scale in balance. The weight is behind the dial of the scale and is not visible in the photograph.

The actuating element of the device consists of three small pieces of especially prepared wood, which is very absorbent and quickly susceptible to atmospheric changes. Mr. Autry states that hundreds of tests have proven that the readiness with which this wood absorbs and expels moisture is in direct proportion to the behavior of bulk cotton, hence, as a finished lap takes in or relinquishes moisture under atmospheric changes, the actuating element of the control is likewise effected, and, by mechanical means, the pointer shown on the dial of the lap scale is moved accordingly.

As an illustration, it may be assumed that the average moisture content of the cotton is 6 per cent, and a 41½ pound lap, carrying this content, and allowing ½ pound variation on either side, is desired. The pointer is set on the dial for the weight desired, the space between the two prongs thereof allowing for ½ pound variation each way.

With this setting, and the control set accordingly, then any increase or decrease in the amount of humidity in the room will be reflected by the actuating element described, in that it will automatically move the pointer on the dial scale up or down to allow for such increase or decrease in the amount of moisture in the lap.

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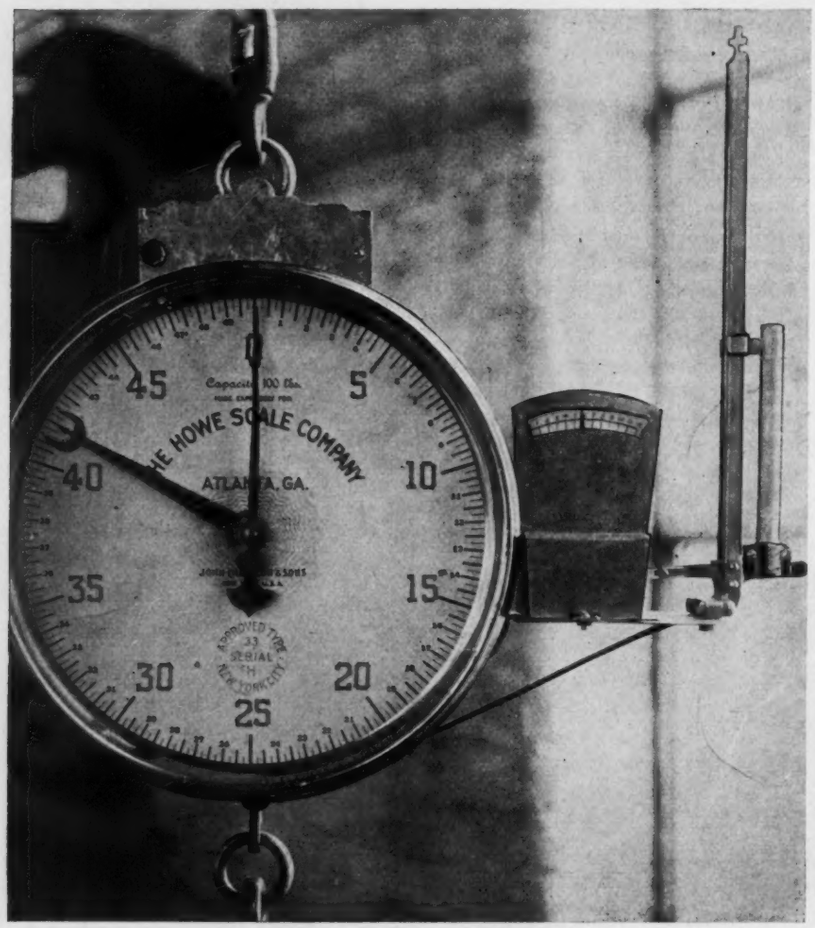
PROMAL.

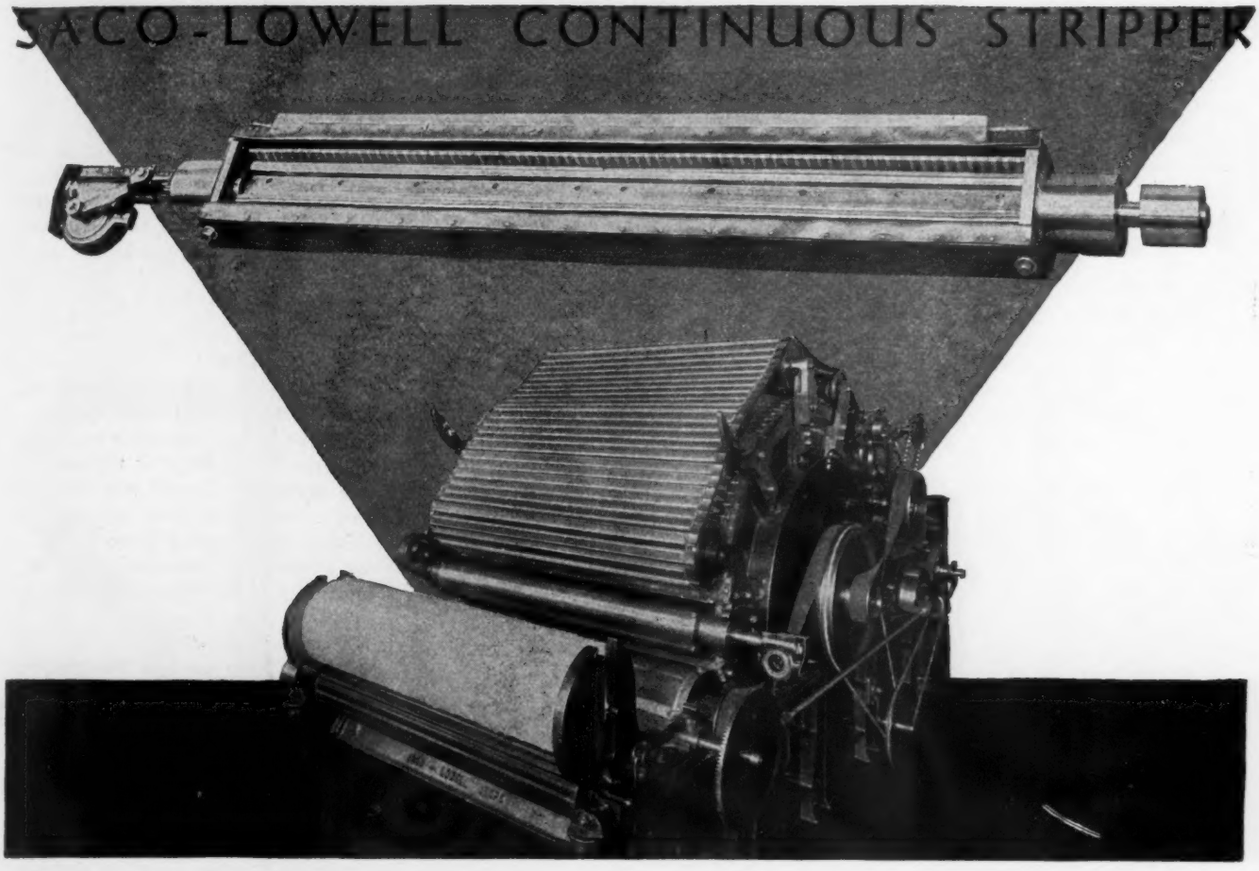
A new line of cast chains showing remarkable strength and durability in comparison with malleable chains has been placed on the market by Link-Belt Company, Indianapolis, according to recent announcement by that company. These chains are sold under the registered trade name of Promal.

The company offers the following comparison: Compared with malleable iron, Pormal has an average yield point of 45,000 lbs., as against 36,000 lbs.; an average ultimate strength of 65,000 lbs., as against 54,000 lbs.; an average elongation of 14 per cent as against 18 per cent; and a Brinell



Autry Automatic Weight Control.

Promal Chain.



Survey Shows a $20,600 Investment SAVES $13,291 in One Year . . . . .

OUR engineers have recently made a survey of the card room of a large yarn mill in Georgia, relative to the installation of continuous stripping rolls. This mill has 142 cards running at a production of 170 lbs. per 20 hours. A trial installation under actual mill conditions showed a production increase of 2 per cent.

As a result all the cards are being equipped, at a total investment of $20,600, which will create a saving of $13,291 in one year,—a net return of 65% on the investment. Labor savings are estimated at $2,125 per year. Stock savings will amount to $11,166 on the basis of the actual operation test.

Mills having cards equipped with Saco-Lowell Continuous Strippers are putting themselves in a position to meet competition and make money. Can you afford to stand aside? Let's get together on this question and find out how much you can save.

SACO-LOWELL

MANUFACTURERS OF TEXTILE MACHINERY

147 MILK STREET, BOSTON, MASS.

CHARLOTTE, N. C. SPARTANBURG, S. C. ATLANTA, GA.

hardness of 170-190 as against 110-130. Compared with mild cast steel, annealed, Promal has an average yield point of 45,000 lbs., as against 34,000 lbs.; an average ultimate strength of 65,000 lbs., as against 60,000 lbs.; an average elongation of 14 per cent as against 26 per cent; and a Brinell hardness of 170-190, as against 120-140.

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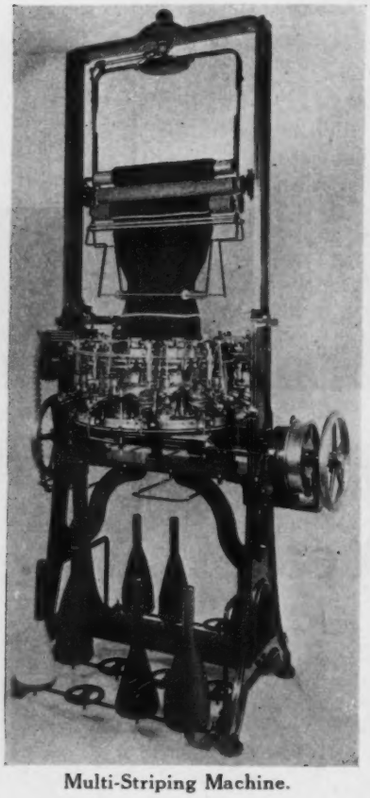
MULTIPLE STRIPING MACHINE.

A unique feature of the Cooper spring needle multiple striping machine, as pointed out by Charles Cooper Company, Inc., Bennington, Vermont, is that by removing the top needles, flat



Multi-Striping Machine.

or plain fabrics may be produced. They state that on this class of work the use of the striping attachment is optional.

They say that the machine is used for making ribbed or flat swimming suits, sweaters, outer garments, etc., and that it will produce ribbed fabric striped in four different colors. The machine is shown in the accompanying illustration.

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PROCTOR DRYERS.

Proctor & Schwartz, Inc., Philadelphia, recently issued a very interesting little 31 page booklet on drying machinery. The booklet is entitled, Proctor Dryers for Textile Industries, and is well illustrated with views of the different machines manufactured by the company.

NEW MULTI-V-DRIVE BY WORTHINGTON.

Worthington Pump and Machinery Corporation, Harrison, N. J., have recently placed on the market a new Multi-V-Drive, which was developed in conjunction with the Goodyear Tire and Rubber Company after months of experimentation. This drive consists of a number of endless molded V-belts running in V-grooved sheaves, combining a new long life type of rubberized cord V-belt with an improved sheave.

The company states that the Goodyear Emerald cord belts used in this drive combine properly high power capacity, long flexing life, low stretch and accurate cross-section. The load-carrying members are cotton cord, arranged in parallel lines and concentrated about the neutral axis; each belt in the drive, it is pointed out, taking an equal share of the transmitted load.

It is explained that each sheave is carefully grooved, machined and finished to present a smooth surface for the belt.

The company points out that an exact mathematical relationship existing between the grooves and the molded shape of the belt produces an effective conformity of belt to sheave. It is stated that the combination produces a grip which transmits about 99 per cent of the applied power at high speed ratios over short centers without idlers.

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NEWPORT DIRECT GREY B.

Newport Direct Grey B is characterized by excellent levelling and penetrating properties, and by the desirable grey shades obtainable by its use in the pad, continuous machines and jig dyeing processes, are the claims made for this dye by the Newport Chemical Works, Passaic, New Jersey. They also state that this new dye is easily soluble and of good fastness properties to washing, perspiration and fresh and salt water spotting.

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THE WEAVER'S KNOT.

The second edition of The Weaver's Knot, published by the Barber-Colman Company, gives some very interesting information concerning high speed warpers.

One interesting paragraph reads: "The real improvements in the warp, however, are made in the automatic spooler and not in the warper, as a great many seem to suppose. Perfect weaver's knots, elimination of kinks, efficient yarn cleaners, and running the yarn without artificial tension at the spooler, go farther toward making perfect warps than any benefits that may be obtained by running the yarn through any high speed warper. This fact has been definitely proven by loom tests in three different mills on 40 looms for 182 weeks, showing that 92 per cent of the improvement in the weave room was due to the elimination of kinks, bad knots, lint, gouts, etc., and that only 8 per cent of the reduction in stops could be attributed to improvement in tension at the warper."

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AN IMPROVED DROP WIRE.

The silk trade, and particularly the rayon industry, is coming to a greater knowledge of the importance of the drop wires in determining the quality of the finished cloth and this comparatively unimportant item of weaving equipment has recently come in for a great amount of attention and study, according to statements by several mills.

Working on the results of this research, the Steel Heddle Manufacturing Company, of Philadelphia and Greenville, S. C., state they have developed an improved drop wire which is said to eliminate many weaving difficulties.

The outstanding feature of this drop wire is the super finish of the eye which, it is claimed, prevents any possible friction or chafing of the thread. Shiners on rayon, due to obstruction by burrs on the drop wires, are said to be entirely eliminated.

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MONEL METAL FINISH.

A new Monel Metal finish, designated as No. 8, has been developed by the Huntington Mill of the International Nickel Company to replace those finishes formerly known as No. 3 and No. 4.

According to statements by the company, it has a silver satin appearance with more luster than both of the latter, but without the high reflectivity of the full finished No. 5. They point out that it was deevloped to eliminate the need on the part of fabricators for further polishing of their products after manufacturing operations are completed.

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DIRECT READING HUMIDITY RECORDER.

Leeds & Northrup Company, Philadelphia, recently published Bulletin No. 880, which gives a description of the L & N Humidity Recorder. The complete equipment comprises two separate electrical units, one designated the wet and dry bulb apparatus and the other the recorder, according to the pamphlet.

ASK THE G·T·M· TO

LOSSES IN **YOUR** OPERATION

The discovery of waste is a prime function of the G.T.M. —Goodyear Technical Man. Now in the handling of materials, now in process methods, he searches out leaks and stops them. He corrects unsuspected losses. Whether your problem is the movement of goods, engine-power, air, or liquids, his knowledge is at your service. By accurate specification of Mechanical Rubber Goods to need, he has lowered costs in innumerable operations. From raw stuff to finished goods he knows industry. He stops costly waste.

Throughout the textile industry are G.T.M.-specified economies. He is an expert in the field. He has effected outstanding savings with the new Goodyear Compass Endless (Cord) and Compass Textile (Cord) Belts—*belts with a nearly stretchless core of cord* —on machine drives. He is introducing Goodyear Emerald Cord Multiple V Belting to your plants. He has specified Goodyear Wingfoot Air Hose and Goodyear Water, Steam and Fire Hose for all phases of your operation. The G.T.M. can bring new profit to you now.

For data on savings the G.T.M. can bring to your operation, just write to Goodyear, Akron, Ohio, or Los Angeles, California.

THE GREATEST NAME IN RUBBER

GOODYEAR

BELTS MOLDED GOODS HOSE PACKING

FELT-SEAL BALL BEARING.

S K F Industries, Inc., recently announced the development of a new type of patented Felt-Seal Ball Bearing possessing a number of distinctive features which mark a radical improvement in this type of bearing. They state that a felt seal is provided as an integral part of the bearing, thus making it necessary for the machine manufacturer to provide only one housing enclosure.

The bore and outside diameter are ground to international standard dimensions and tolerances, the same as the corresponding standard single row bearings, and the width is slightly greater to accommodate the felt seal, the company says.

The company says that another advantage is that the inner race projects a little beyond the face of the seal in order that the bearing may be pulled off the shaft at any time without the possibility of damaging the seal plates.

The seal consists of a dished inner steel plate, a removable felt, a dished steel end plate, and a split steel ring fitted into the groove in the outer race to hold the assembly in place.

An outstanding feature of the design, as pointed out by the company, is the ease with which the seal may be disassembled at any time and new felts applied. They say that to disassemble the seal, it is merely necessary to spring the split steel ring out of the groove in the outer race, after which all the other component parts of the seal may be readily lifted out, pointing out that the entire procedure of disassembling and reassembling is only a matter of a few minutes' time.

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SCREW CONVEYOR DRIVES.

Book No. 1191, illustrating and describing the complete line of Caldwell Screw Conveyor Drives, has just been published by H. W. Caldwell & Son Co., 2410 W. 18th St., Chicago.

The 32 pages of this book are devoted to illustrations of these drives, typical installations of the equipment, and engineering data enabling one to select intelligently the type drive for the individual purpose, the company points out.

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NEW DYESTUFFS.

Sulfogene Brown RBNX and Pontamine Diazo Black ZV Concentrated are the names of the two new colors recently placed on the market by E. I. Dupont De Nemours & Co., Wilmington, Del., and described in pamphlets E. 430 and E 432, respectively. The properties and dyeing instructions are given in the pamphlets.

OVERWEIGHT AND UNDERWEIGHT.

Overweight, no matter what causes it, is always a loss. When constantly repeated, it is a drain on profits. Underweight, no matter what accidents or errors give rise to it, is dangerous both to costs and to reputation. The foregoing represents opinions of the Toledo Scale Company, 270 Madison Ave., New York.

They announce a new automatic scale, not the least interesting feature of which is that it is virtually fool proof against both overweight and underweight, to combat these two sources of loss. The chart of this instrument shows simply a a line marked "O", flanked on one side by the word "under", and on the other by the word "over." There are two platforms, one to hold the article to be weighed, the other to carry the check weights.

Upon the latter platform the attendant places whatever weight he wishes his finished article or package to reach —say five pounds. He then "sifts" or feeds in enough of the article being weighed so that the indicator comes to rest upon the zero line.

The company claims that the scale is sensitive even to the weight of a coffee bean of 1/64 of an ounce in weight, and that it weighs accurately and instantaneously even when out of level. They point out that it is not necessary to center the weights or commodity on their respective platforms, which permits much greater speed with no sacrifice of accuracy in results.

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CHEMICALS.

The Grasselli Chemical Co., Cleveland, Ohio, recently published a very attractive little booklet giving a list of their works and warehouses, along with the products which they manufacture and distribute.

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A NEW STARTING SWITCH.

For convenient starting and stopping of small D. C. and Polyphase C. motors, Cutler-Hammer, Inc., 109-12th St., Milwaukee, Wis., announce that they are offering a new two pole, push-button operated starting switch with thermal overload relays, described in Bulletin No. 9103. They state that this new starting switch can be used with D. C. motors up to ½ H. P., 115 volts and ¼ H. P., 230 volts or with A. C. motors—single, two or three phase up to 2 H. P., 110 to 550 volts.

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DEMAG.

Ambold Machine Tool Corporation, 50 Church St., New York, have issued a pamphlet describing the Demag Junior Double Acting Hoist, which is a small electric hoist for lifting weights up to about 275 pounds.

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NEW DYES.

Among the new dyes recently put on the market by the Newport Chemical Works, Inc., are included Anthrene Navy Blue Double Paste Fine; Anthrene Black R. P. Paste Fine; Newport Acid Anthraquinone Blue B G A; Anthrene Blue 5 G Paste; National Alizarine Red S; and National Solantine Red 8BL.

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NEW PAMPHLET.

Oswald Lever Company, Incorporated, 11th and Cambria Streets, Philadelphia, Pa., recently published six very interesting pamphlets on winding machinery. The names of the pamphlets were: Pressure Drum Spooler No. 8; New Over-End High Speed Method for Warping; Lever No. 30 Bottle Bobbin Winder; Lever No. 20 Cop and Bobbin Winder; Improved Chain Warp Beamer; and Lever Wound.

All pamphlets, by means of illustrations and data, furnish very interesting and instructive information regarding their respective machines. Any of the pamphlets may be secured by writing the company.

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CLEANER MILL ALLEYS.

The Atlanta Brush Company, Post Office Box 1358, Atlanta, Ga., recently announced that they had perfected the Twin Sweep No. 39, which represented two brushes of deep-seated Bahia Bass, with the handles well off center, enabling the cleaner to work with them in a V-position. They state that the two brushes, instead of a larger single brush, enables the sweeper to sweep cleaner with fewer back strokes. They point out that another feature of the new twin brush is that both brushes may be reversed—making for even wear and consequently extra long life.

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FACTORY LIGHTING DECLARED IMPORTANT.

E. Leavenworth Elliott, of the General Electric Vapor Lamp Company, in a recent address to the textile students of the North Carolina State College on the topic "How to See," urged the future men in the cloth industry to study the effects of lighting in the factories of which some day they might be a vital part.

"People do not appreciate the wonderful mechanism used in making cloth," said Mr. Elliott, "and do not realize that daylight is not necessary in order to see the varied colors in fabrics."

What are you doing with your Roving Waste

Cotton spinners are fully alive today to the benefits that arise from economical operation. You, therefore, cannot afford to overlook the pecuniary advantages to be derived from the careful distribution and disposal of your waste.

In the various processes of preparing and spinning cotton there is an unavoidable discharge of fibrous material, which, if properly treated, can be turned to profitable account.

Roving and Clearer Waste has always been the most difficult for the spinner to deal with, and our machines have been designed to give the best reclamation value for waste of this character.

To pass Roving Waste, in its stringy and twisted condition, through the Picker, along with the unopened cotton, makes certain its appearance in subsequent processes; consequently, many mills have been obliged to discontinue the practice.

Our New Model Roving Waste Openers do not affect the evenness of the cotton nor weaken the yarn. The material is treated gently, without injury to the staple, and the waste so thoroughly opened that when mixed with the raw cotton no trace is discernible in subsequent processes.

These machines are strongly built to give long wear, and all operating parts are protected by suitable guards.

Specifications and quotations gladly furnished upon request.

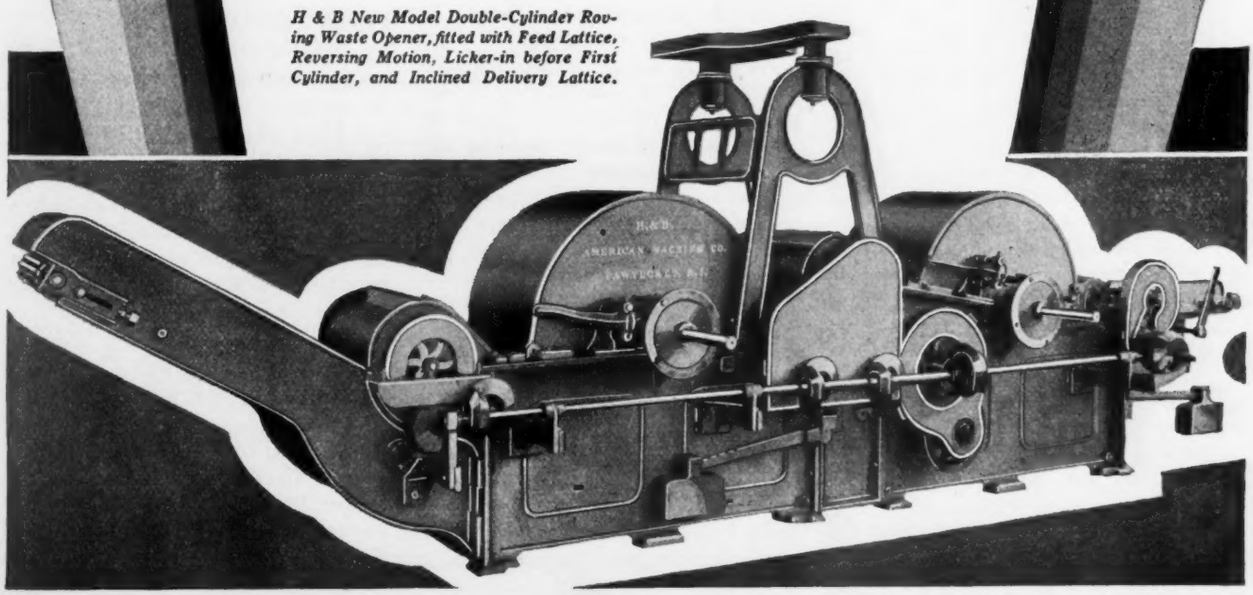
H & B AMERICAN MACHINE COMPANY

PAWTUCKET, R. I.

Southern Office: 814 and 816 Atlanta Trust Co. Bldg., Atlanta, Ga.

BUILDERS OF COTTON PREPARATORY AND SPINNING MACHINERY

H & B New Model Double-Cylinder Roving Waste Opener, fitted with Feed Lattice, Reversing Motion, Licker-in before First Cylinder, and Inclined Delivery Lattice.



NEWS ITEMS *with a Textile Slant*

TOLHURST BECOMES INDEPENDENT COMPANY.

With the merger of the General Laundry Machinery Company and the American Laundry Machinery Company, the Tolhurst Machine Works, Incorporated, Troy, N. Y., which has been associated with the General Laundry Machinery Company, becomes an independent corporation, it was recently announced.

The Tolhurst Machine Works, Incorporated, have been long and prominently identified with the textile industry through its engineering development in connection with centrifugal extraction. Its position in the industry remains unchanged, the company states, except insofar as the move will enhance the engineering and production resources of the company. The company will continue to produce a complete line of centrifugal extractors for all branches of the textile industry.

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A CENTURY OLD BUSINESS LEADER.

The census taker of 1830 was partly finished with his task when Henry C. Graton was taking his first peep at a brilliant July sunshine, Andrew Jackson was in the White House. The population of the country was about that of the metropolitan area of New York City at the present time. The gold rush to California was not yet dreamed of. West of the Mississippi was wilderness and desert. Only twenty-four states comprised the Union, and some of these were still pretty much in the possession of hostile Indians. Madison and Monroe were still alive. Lincoln was an obscure lawyer. Henry Clay, the fiery young orator of Kentucky, who was destined to play an important part in American history, was at that time visiting the towns of Massachusetts. His speeches made such an impression upon the Graton parents that the boy was named Henry Clay Graton.

Mr. Graton.

Such is the picture of 100 years ago when on July 10th a baby boy was born who was later to become the head of the largest leather belt manufacturing concern in the world. Today the Graton & Knight Company, of which this man was a founder, is in its eightieth year of existence, and the man who was its guiding genius during most of these years still lives in good health to look back upon a splendid accomplishment. To enjoy a hundredth birthday is a privilege that is accorded to few of us. To live through one hundred years of such stupendous changes as this man has seen in the industrial development of America seems hardly possible. To have seen and lived in the same town with men who fought at Bunker Hill and who served in the ragged armies of Washington seem almost incredible.

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TWO NEW DYESTUFFS.

Under the heading Art Silk Blue G. 652 and R 843 the society for Chemical Industry in Basel brings on the market two new dyestuffs which distinguish themselves by level dyeing on striped dyed viscose, they state. It is pointed out that dyeing is carried out in the usual manner for direct colors, and that the fastness to light of both products is better than that of the standard direct blue on the market. They also state that fastness to acid and alkali is good. Ciba Company, Inc., Cedar and Washington Streets, New York City, are the representatives of the society in this country.

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TEXTILE SCHOOL ADDS NEW COURSES.

The Textile School of North Carolina State College, in order to give its students a wider variety of instruction in the design, manufacture, finishing and distribution of textiles, has rearranged its curricula and added a number of new courses. Textile students now have the opportunity to pursue the general course in Textile Manufacturing or major in Yarn Manufacturing, Weaving and Designing, or Textile Chemistry and Dyeing.

Students who elect the general course in Textile Manufacturing, in addition to taking work in carding, spinning, knitting, weaving, designing, dyeing and cultural subjects, will have the privilege of selecting one of three options, industrial, marketing, or education.

PATENTS, TRADE-MARKS AND COPYRIGHTS.

"Patents Trade-Marks and Copyrights—Law and Practice," is the title of a book recently published by Richards & Geier, patent and trade-mark attorneys, 274 Madison Ave., New York.

The book is written in terms the business man can understand, and covers the essential features of patent, trademark and copyright laws, the publishers state. The publishers announce that they will be glad to send a free copy of the book to interested parties who write in for it.

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ROESSLER AND HASSLACHER HOLD CONVENTION.

The Roessler and Hasslacher Chemical Co., New York, N. Y., held its annual sales and service convention at Niagara Falls during the month of June. In attendance were executives from the company's manufacturing plants and New York offices.

Activities of the convention included inspection tours about the Niagara Falls Plant, visits being made to several of the process departments. The business sessions were featured by pertinent papers discussing manufacture, service and sales of R. & H. products.

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COTTON BAGGING.

Cotton ginners of Ashley County, Arkansas, have voted to use cotton bagging in baling their 1930 cotton crop, according to advices just received by The Cotton-Textile Institute, Inc.

In reporting this action to the Institute, Carroll G. Mears of Fountain Hill, Arkansas, states that efforts are being made to interest ginners in adjoining counties and throughout the entire state to follow their lead.

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FIBRE COMPANIES CONSOLIDATE.

The Fibre Specialty Manufacturing Company, Division of National Vulcanized Fiber Co., of Kennett Square, Pa., has purchased the Rogers Fibre Company of Kennebunk, Maine, Boston, Mass., and Spartanburg, S. C., manufacturers of Leatheroid Receptacles. All equipment and records have been transferred to Kennett Square.

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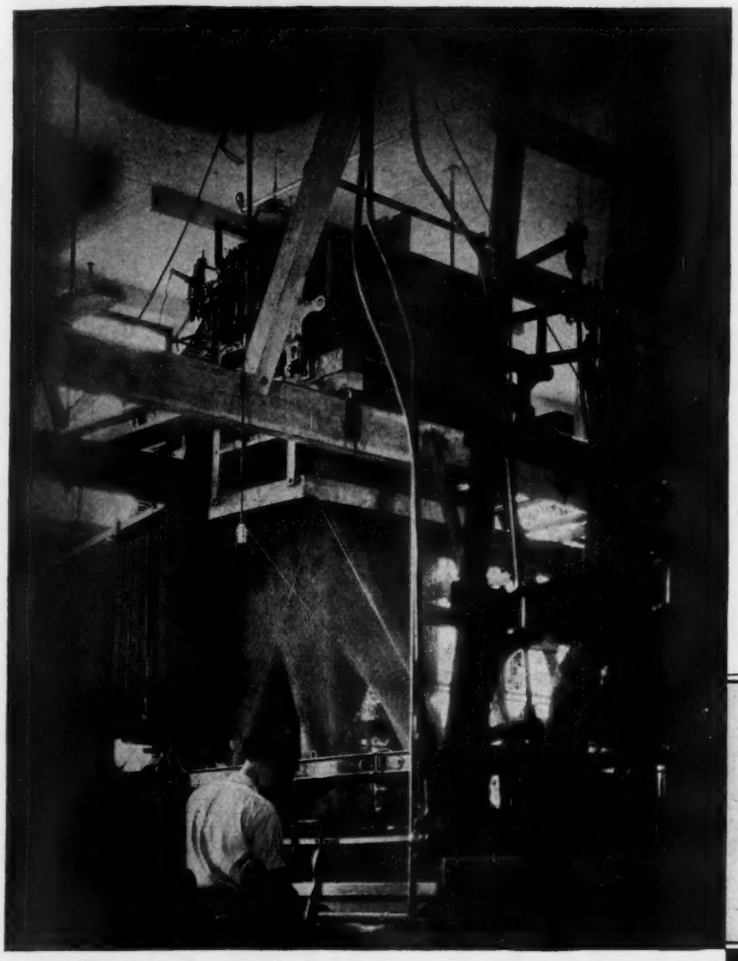
GENERAL DYESTUFF ANNOUNCES HIGH EXECUTIVE CHANGE.

Colonel Herman A. Metz is now Chairman of the Board of Directors of General Dyestuff Corporation, and Mr. Ernest K. Halbach has assumed the presidency of the company, according to recent announcement.



HALTON'S JACQUARDS CAN BE BOUGHT ON MONTHLY PAYMENTS. WRITE FOR DETAILS.

"It is better to replace with modern machinery bought with borrowed capital and pay interest on the debt, than to pay several times the interest through a loss in quality and production."

*Chairman of a Division of the Southern Textile Association.**

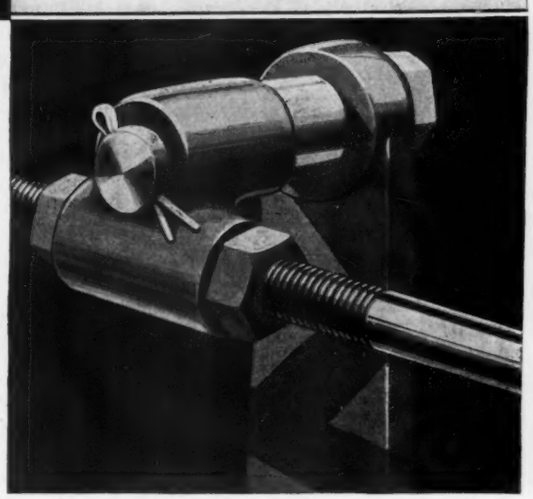
But it's not necessary to borrow!

Throw out the obsolete jacquard machines in your mill, replace them with Halton's Jacquards—and *let them pay for themselves* through the Halton Finance Plan.

Mills that are handicapped by outworn, out-of-date jacquards cannot hope to compete with the leaders in the industry who rely on Halton's Jacquards as profit-making items in their modern production methods.

If your profits are licked at the start by lame machinery—install Halton's Jacquards! Less costly performance, greater versatility in design, and quicker adjustments to the patterns of the moment will put you on the same production basis as the profit-making leaders of the industry. If Halton's Jacquards don't make a profit for Karagheusian, why do they use them—or such mills as S. J. Aronsohn, or La France Textiles, or Morrell Mills?

*Name on request.



Lever Arms are adjustable—so that the knives can be quickly leveled without disturbing the lever stands. Our catalogue shows many other cost-reducing details. Get it.

HALTON'S JACQUARDS

THOMAS HALTON'S SONS • • • "C" and Clearfield, Philadelphia

SELLING AGENTS

H. A. FORBES
PATERSON, N. J.

THOMAS S. CAPPER, INC.
CHARLOTTE, N. C.

FRED H. WHITE
CHARLOTTE, N. C.

JOS. NOONE'S SONS CO. CORRECTS RUMOR.

The Jos. Noone's Sons Company, of Peterboro, N. H., have stated that they wish to correct an error that has been circulating in some quarters in the form of a rumor, to the effect that they have sold out. They thought that this might have been due to the fact that the machinery and equipment of C. H. Noone & Company, located in South Boston, was recently sold, but stated that C. H. Noone and Company was at no time, in any way, a part of The Jos. Noone's Sons Company.

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FULLER LEHIGH OPENS NEW SALES OFFICE.

Announcement has been made by the Fuller-Lehigh Company, manufacturers of pulverized-coal firing equipment and Bailey Water-Cooled Furnace Walls, of the opening of a new sales office in the Candler Building in Atlanta, Ga. J. Mc. C. Hill is in charge of the new office. The main offices and works of Fuller Lehigh Company are located at Fullerton, Penna.

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A NEW PUBLICATION.

It was recently announced by H. J. Wright, general manager of the Dry Goods Economist that instead of appearing as a weekly publication, the magazine would from now on make its appearance as a monthly publication. The company states that the editorial message of the new Economist is told in idea-pictures, and in brief and definite text for the busy reader.

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INDUSTRIAL RAYON MAKES ANNOUNCEMENT.

Industrial Rayon Corporation, Cleveland, Ohio, recently announced that the headquarters of J. H. Mason, their representative in North Carolina and Virginia, have been moved from Charlotte, N. C., to 1105 Greensboro Bank and Trust Building, Greensboro, N. C. The office formerly occupied by Mr. Mason will be continued by Bruce Griffin, district sales manager. They also announce that their New England representative, H. R. Barker, has moved his office to 38 Brock Street, Fall River, Mass.

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A NEW DEPARTURE.

The Nyanza Mills, of Woonsocket, R. I., announce that they are introducing to the trade a new departure in men's undershirts, which is a line made of 60/1 durene twisted with 60/1 nyon. They state that factors in the trade have commented on the luxuriousness of this garment, and its feeling of lightness furnished by the mixture of yarns.

MID-YEAR SALES CONFERENCE.

The mid-year sales conference of the Industrial Rayon Corporation was held July 9th, at the home office in Cleveland, Ohio. The meeting opened with a luncheon, which was followed by interesting talks by A. A. Murphy, sales manager, who had charge of the meeting, and H. S. Rivitz, president of the company. Hayden Kline, technical director and George Brooks, service manager, also spoke very interestingly on manufacturing and service as related to selling.

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MONEL METAL BELT DRESSING.

Alligator Monel Metal Belt Lacing, which solves the problems of destruction of the lacing by rust or of the damage caused by rust where highly corrosive conditions are encountered, is now available in all sizes in standard boxes or special lengths, according to the manufacturers, Flexible Steel Lacing Company, 4619 Lexington St., Chicago. The manufacturers state that mill supply and hardware jobbers can supply Alligator Monel Metal Belt Lacing.

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CIBACETE YELLOW GN POWDER.

Ciba Company, Inc., Cedar and Washington Streets, New York, announce the addition to their line of a new dyestuff, Cibacete Yellow GN Powder, described in Circular No. 324 They point out that the new dyestuff dyes on Acetate silk with great fastness to light, not photropic shades, and is recommended for yellow shading in combination with other fast to light Cibacete dyestuffs in the dyeing of Acetate silk in piece or yarn.

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SEVENTY-ONE MILLS ADDED TO INSTITUTE LIST.

Seventy-one cotton mills with 2,835,043 spindles have joined The Cotton-Textile Institute since its last annual meeting, according to an announcement made by the Institute recently.

The Mary Leila Cotton Mills, Greensboro, Ga., Margaret Mill, Huntsville, Ala., Volunteer Knitting Mills, Athens, Ala., and the Appalachian Mills Co., Knoxville, Tenn., are among the latest additions to the Institute membership.

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COLOR TO LENGTHEN MOTOR LIFE.

Color to lengthen motor life is a new idea advanced by The Reliance Electric & Engineering Company, Cleveland, Ohio, to obtain steadier operation and longer life from motors. Many prominent engineers have seen the Reliance D. C. Motors with the new bright color and have pronounced the idea as a great step forward, the company states.

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SCHWEITZER & CONRAD MERGES WITH CUTLER-HAMMER.

Announcement was recently made by Cutler-Hammer, Inc., Milwaukee, Wis., that on July 1st, they acquired all common stock of Schweitzer & Conrad, Inc., Chicago, manufacturers of high voltage equipment.

It is understood that Schweitzer & Conrad will continue to operate as an independent manufacturing and selling unit. No changes in organization or personnel will be made except that Mr. Beverly L. Worden, president of Cutler-Hammer has also been elected president of Schweitzer & Conrad, they state.

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BULLETIN ON DETERMINING COST OF ELECTRIC APPLIANCES.

General Electric Co., Schenectady, N. Y., recently issued a pamphlet containing a chart to be used in determining the cost of operating electric appliances and motors. By laying a ruler on the figure on a line representing the number of watts taken by the appliance or motor, and allowing it to cross a parallel rate line at the rate in cents per kilowatt-hour, the cost in cents to operate for one hour may be read on a parallel line.

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ABOUT KIERS.

The Rodney Hunt Machine Company, of Orange, Mass., announces the recent acquisition of the business, goodwill, machinery, patents, stock and equipment of Jefferson Kiers, Inc., of Boston, Mass., and the transfer of the business to its Orange factory. The company also announces that the expert services of E. D. Jefferson, formerly president of Jefferson Kiers, will continue to be available to any mill in the United States or Canada desiring to discuss their kier problems.

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WYANDOTTE IN THE TEXTILE MILL.

The J. B. Ford Company, Wyandotte, Michigan, recently published a very interesting little booklet entitled, "Wyandotte in the Textile Mill." The company states that the purpose of this booklet is to direct attention to some of the uses of the Wyandotte textile sodas and alkalies and to suggest methods or formulas for their use that would produce the most reliable results consistent with true economy.

The Texas Company
Houston, Texas
Gentlemen:
We have been using Texaco lubricants in our plant, to the writer's knowledge, since 1917, and more than likely before that. There are a number of special lubrication problems in the Textile mill such as spindle and comb-box lubrication and Texaco has met their unusual requirements very satisfactorily. We have used your cylinder and engine oils extensively as well as special oils and greases and in every case we have found your products of uniform high quality.
We have also found the service rendered by your local organization very satisfactory, having sufficient stock at all times and the very best of facilities for handling our business.
Yours very truly,
Gonzales Cotton Mill Company.
By: J. B. Saunders, Mgr.

Texaco Lubricated *for 13 years*

-AND STILL TEXACO

DEPENDABLY uniform, high quality lubricants combined with the exceptionally helpful Lubrication Service experienced at this southern cotton mill have won and held the complete confidence of its executives for more than 13 years.

Many unusual problems have been solved by Texaco engineers and the entire plant has been effectively lubricated by Texaco. There can be no more positive proof of complete satisfaction in a company and line of products. This is the one reason for the ever increasing number of Textile plants that are 100 percent Texaco lubricated. Write The Texas Company whenever you have a question on lubrication—regardless of whether you now use Texaco Lubricants or not.

TEXACO

THE TEXAS COMPANY
135 East 42nd Street, New York City

TEXACO LUBRICANTS

NOTES ABOUT MEN YOU KNOW OR KNOW ABOUT

James B. Williams, who has been associated with the Fisk Rubber Company for eleven and a half years, has resigned his position as assistant fabric manager, and is enjoying a rest. Mr. Williams was formerly assistant superintendent of the Warren Cotton Mills, West Warren, Mass., and also head designer at the Barnard Manufacturing Co., Fall River, Mass.

J. L. Van Nort has been advanced to sales engineer of the Boston office of the Reliance Electric & Engineering Co., Cleveland, manufacturers of alternating and direct current motors.

G. B. Byrd, superintendent of the Caraleigh Mills Company, at Raleigh, N. C., recently resigned to accept a similar position at the Pee Dee Cotton Mills, which are located at Rockingham, N. C.

Luther C. Baldwin, who at the time of his death was president of the U S Bobbin and Shuttle Company, died at his home in Providence, R. I., on June 26th. Mr. Baldwin was 76 years of age and had for many years seen active service in the bobbin industry. He became interested in the manufacture of bobbins rather early in his life, and later assumed an executive position with the James Baldwin Bobbin Co., which company was a short time ago merged with the U S Bobbin and Shuttle Co.

Mr. Baldwin.

Murray Hobart has become associated with the Bauer & Black Division of The Kendall Company, Chicago, as purchasing agent. Since graduation from Northwestern University in 1914, Mr. Hobart has acquired wide experience in industrial organizations, having served in such capacities as purchasing agent, assistant vice-president and industrial engineer.

J. F. Sentell has resigned his position as overseer of carding with the Victory Mfg. Co., Fayetteville, N. C., a position he has held for the past eight years, to accept a position as superintendent of carding at the Borden Mills, Inc., Kingsport, Tenn.

Stanley Morton has been appointed assistant to the general sales manager of the Atwood Machine Company. He has been with the Atwood Machine Company for fifteen years and more recently has been acting as their service engineer. His experience with the textile mills very admirably fits him for his new position.

N. C. Lane, overseer of weaving at the Saratoga-Victory Mills, Albertville, Ala., has resigned.

J. E. Young is now master mechanic at the Arnco Mill, Newnan, Ga.

H. King, Jr., has accepted the superintendency of the El Paso Cotton Mills Co., El Paso, Texas.

Charles F. Smith was recently made superintendent of the Washington Hosiery Mills, Nashville, Tenn.

J. F. Young, Jr., recently succeeded T. B. Reynolds, resigned, as superintendent of the Helen Mills, Huntsville, Ala.

C. H. Zemp has been made superintendent of the Hermitage Cotton Mills, Camden, S. C.

F. Kilby Hall has been appointed a business specialist in the domestic commerce division of the U. S. Department of Commerce. During the past two years he has served as a textile technologist in the United States Bureau of Standards at Washington.

R. Grady Rankin, head of several textile mills in Gastonia, N. C., has been appointed by Gov. Max Gardner, of North Carolina, a member of the State board of conservation and development, succeeding B. B. Gossett, of Charlotte, president of the Chadwick-Hoskins group of mills, who has resigned, in order to devote all of his time to his large business interests.

L. T. Horton, formerly with the Cascade Mills, Inc., Mooresville, N. C., has recently been made secretary and treasurer of the Mooresville Shirt Corp.

W. B. Sanders was recently appointed manager of the Full-Knit Hosiery Mills, Inc., at Burlington, N. C., succeeding the late R. G. Sellers.

W. F. Young, formerly employment manager of the American Enka Corp., at Enka, N. C., was recently appointed safety inspector for the corporation. He succeeds H. E. Jones, assistant chief engineer.

A. E. Edwards has been made superintendent of the testing laboratory of the Morgan Cotton Mills, Inc., at Laurel Hill, N. C.

W. L. Long, of Gastonia, N. C., has been appointed superintendent of the Armstrong and Piedmont plants of the American Combed Yarn Corp., Gastonia, N. C. He will remain superintendent of the Dunn plant of the company, it is said.

Frederick A. Manchester was recently made assistant to the general purchasing agent for the American Enka Corp., Enka, N. C.

C. O. Smith, of Lancaster, S. C., is now superintendent of spinning at Middleburg Mill, Batesburg, S. C., succeeding W. T. Morton.

C. P. Wilson, superintendent of the twisting department of the plant of the American Enka Corp., at Enka, N. C., has resigned.

H. M. Miles is now overseer of spinning department at the Cherokee Spinning Co., Knoxville, Tenn.

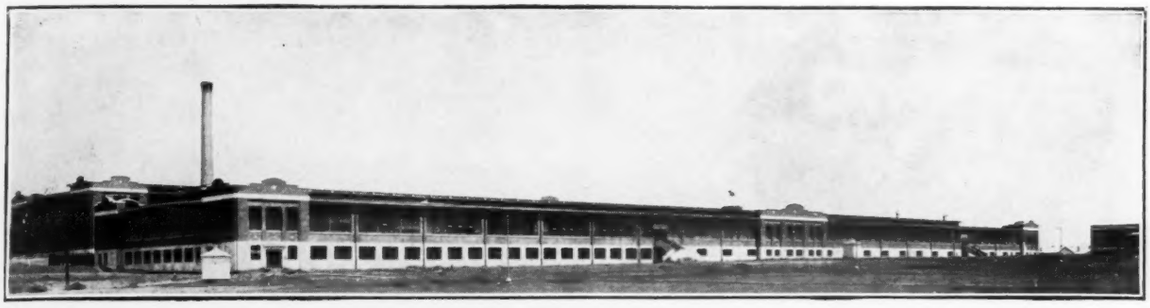
R. V. Owens, formerly second hand in one of the departments of the Stonecutter Mills Co., Spindale, N. C., is now with the Patterson Mills, Rosemary, N. C., serving in the same capacity.

H. A. Thornton has resigned as superintendent of knitting at the Russell Mills, Alexander City, Ala.

H. B. Taylor recently resigned as general superintendent of the Chadwick-Hoskins Mills, Charlotte, N. C. His successor has not been announced.

J. Leake Spencer, secretary and treasurer of Highland Park Manufacturing Company, Charlotte, N. C., a well known mill man, died suddenly on July 6th at Blowing Rock, as a result of heart failure. Mr. Spencer has been associated with the C. W. Johnston mill interests for the past 35 years. He was 53 years of age at the time of his death.

"EVERY KNOT A WEAVER'S KNOT"

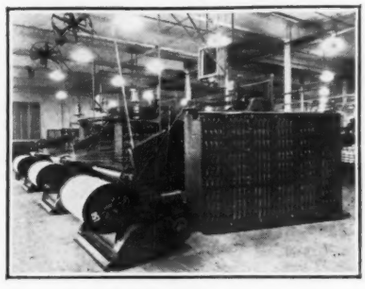


Barber-Colman Equipment at

BEMIS BROS. BAG CO.

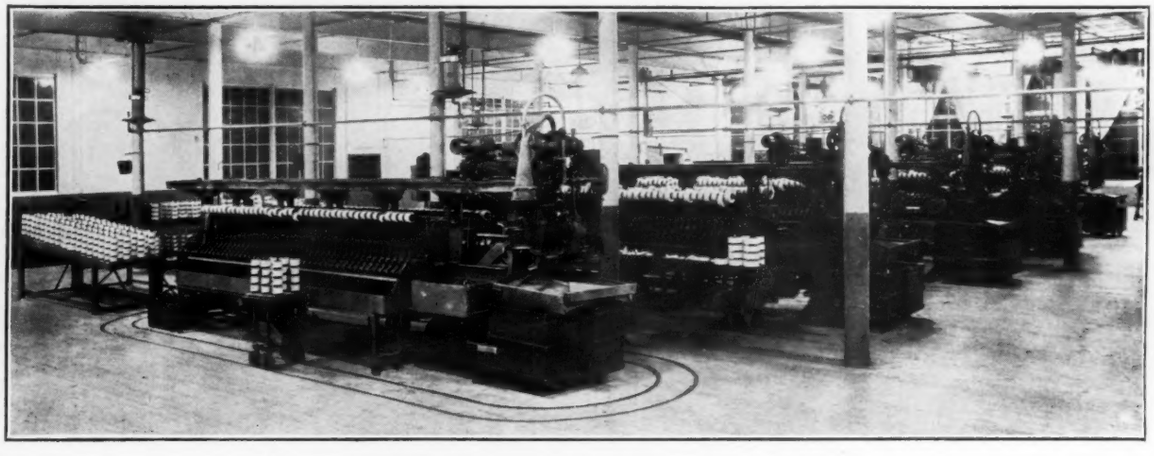
Bemiston : Alabama

Installed at St. Louis . . . in 1921



Moved to Bemiston in 1929 . . .

NOW running in their ninth year of continuous service, 5 Automatic Spoolers and 3 High Speed Warpers are being used on coarse yarns, mostly 8s and 18s. Twelve more Spoolers and six more Warpers have been in use for ten years and more in the two other cotton mills of the Company, at Indianapolis, Ind., and Bemis, Tenn. This is another example of an up-to-date mill that is obtaining highly satisfactory service from these modern machines.



BARBER-COLMAN COMPANY

General Offices and Plant

ROCKFORD, ILLINOIS

GREENVILLE, S. C. FRAMINGHAM, MASS

THE VOLGA BOATMEN

IN Russia, during ancient times, before steamers were used, heavy barges with tons of cargo were dragged up and down the Volga River by hand! The sole means of moving such craft was by ropes pulled by the boatmen, or *burlaki,* on the banks. These serfs were driven by masters with whips. Imagine human beings harnessed like beasts to ropes . . . sweating bodies . . . taut muscles like knotted cords . . . straining and tugging to draw cargo many times their own weight upstream. Not merely a few minutes or a few yards, but for miles, from port to port, from sun-up to sun-down. Such were the labors of the Volga Boatmen.

The body-breaking toil of the ancients is almost beyond the understanding of people fortunate enough to live in the twentieth century, with its steamships, aeroplanes, automobiles, electric trains, innumerable manufacturing plants, and other marvelous inventions of a highly progressive age. Crude methods, slow and laborious, have been replaced in all branches of industry, with time and labor-saving machines that swiftly and automatically do the work of human hands.

Machines are responsible for the mass production of textile mills and the low price of the manufactured product to the consumer. In a modern textile plant, where fast production and economy in operation are vital, there is no place for work done by hand that could be done by machinery.

Old methods, such as cleaning bobbins by hand, increase operating costs and slow up production.

The Termaco machine for cleaning roving bobbins will clean 50 bobbins a minute, or 30,000 a day. It prevents waste because the staple is not cut and requires no reworking. It prolongs the life of bobbins, eliminating the splitting of hand-cutting.

For cleaning filling bobbins, an Utsman single end machine will clean 40,000 bobbins a day; a double end Utsman, 80,000 a day.

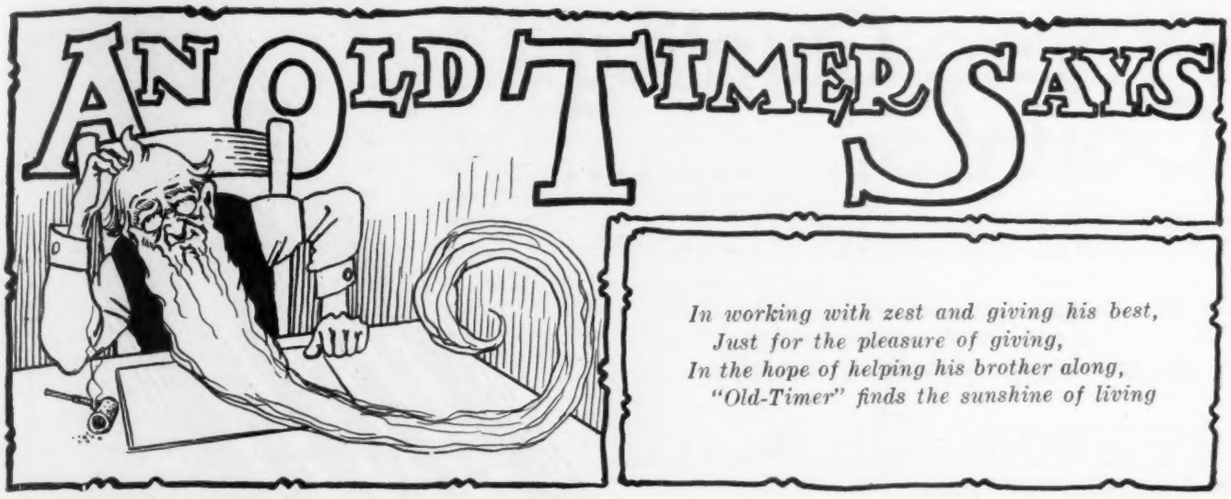
The Type K machine for cleaning both plain and automatic loom bobbins and certain kinds of warp bobbins will clean 60,000 a day.

These machines will practically pay for themselves the first year in savings on operating costs. They speed up production, increase efficiency and save labor. Terrell machines are standard equipment in numbers of the most modern mills. Can you afford to longer neglect this opportunity of saving in your plant?

Write for complete information about these machines. In writing please state whether you are interested in cleaning roving or filling bobbins and, if possible, send a sample of the particular bobbin which you have in mind. If you are interested also in motor-driven machine, kindly give full details, including voltage, phase, and cycle of your current.

THE TERRELL MACHINE COMPANY, INCORPORATED
Charlotte, N. C.

(General Supply Co., Danielson, Conn., representatives for New England, New York, New Jersey, Pennsylvania and Canada.)


AN OLD TIMER SAYS
In working with zest and giving his best,
Just for the pleasure of giving,
In the hope of helping his brother along,
"Old-Timer" finds the sunshine of living

THE ARTICLE below was written not only for overseers and superintendents to read—because they are in a sense operatives—but, in case it appeals to you as appropriate, you are advised to post it in the mill for the operatives to read. To this end, we shall gladly furnish to you upon request and without charge, copies of a display placard upon which this article has been reproduced in a size of type and on a card suitable for posting. Merely ask us for copies of the Old-Timer article in August COTTON, and let us know how many copies you desire.

This suggestion is prompted by the fact that while passing through a weave room recently, one of Old-Timer's articles was noted as having been cut out, framed with a glass over it, and posted in a weave room for the operatives to read.—Editor COTTON.

"We All Go Up and Down Together"

THERE RECENTLY appeared in a prominent magazine an article about a fire that had occurred at a large factory. I quote a part of it as follows:

"A fire which started near a large factory, and which was gradually creeping nearer to it, threatened to destroy the building. The workers were organized into volunteer fire fighters, and as the fire advanced, they had to choose whether to save their homes or save the plant. (Most of them had bought lots and built their own homes near the factory, which was a large lumber plant.)

"One of the officers of the firm saw the fire was gaining on them, and that two of the operatives' homes had already caught fire. He told the married men to save their homes first, but one of the operatives jumped up on a pile of lumber, and shouted to the crowd: 'Men, there are about 400 of us, and if we will all stay here and work together we can save the factory, which is the source of our meat and bread. Without the factory many of us would not have had our homes, and if it burns, we will have to look for other jobs.

" 'Let's save the factory and let our homes burn; then we can keep our jobs and make the money to build our homes back.' "

They saved the factory and about half of the homes did burn. I would like to quote the rest of the story, but I have quoted enough to bring out my point, which is this: The success and happiness of any set of operatives depends on the success of the industries in which they work, matters not whether it is factory, mine, store or what.

Such instances as that cited are proving that people are finding out that

"We All Go Up and Down Together."

That is, if industry is prosperous, labor is prosperous.

Operatives are fast finding out that a spirit of cooperation and fair play is the best for their own pocket-books.

The working class of people are reading more good papers, magazines and books; studying their work more and becoming more intelligent.

Being more intelligent, they are of course able to understand why an overseer is trying to do all he can to show them ways to increase their production and their pay envelope.

About all the talk you hear now that, "the overseer has got it in for me," because he got after someone for falling behind in production, comes from some young fellow who only stays at one mill until they find him out and who wants to hand out a line of big talk to the other young fellows about how he is going to beat up the overseer, and about how many overseers he has killed, etc.

The intelligent operative knows that the overseer is constantly on the look-out to find ways to help him increase his production.

By the most simple reasoning any person knows that an overseer would soon be out of a job if he tried to do everything he could to hurt the operative instead of help him.

The intelligent operative is finding out that the problem of increasing production means just as much to him as an individual as it does to the employer.

This is the problem of American industry today, and we are all beginning to understand it better.

A man does not fly up and get mad now when you

Where Quality Counts.....

A quality material has never yet been produced profitably with poor quality equipment. This is especially true as regards your loom harness.

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begin to reason with him this way: If section men will be more careful, more saving with high-price supplies, if people will take care of the houses they live in, like they belonged to them, if every hand at every process will cut out all the bad work they can, we will all share in the increased production.

Even a good spinner can see the reason in your talk when you tell her that to throw white waste on the floor, will make it get oil and sweepings mixed with it, and in having to come back through the card room again, the more of it they throw on the floor the more of it will be in the roving they have to spin, which will, of course cause her to have that many more ends down.

The operative who deliberately breaks a good bobbin; knows it cost money and that it all figures in the cost of making the goods the mill is trying to sell, just the same as the wages he is paid figures in the cost, therefore if the mill did not have this cost of bad work, wasted supplies, etc., it could pay him more wages.

This reminds me of a little instance which came to my mind not long ago.

A mill had sixteen spinning frames on a certain number of yarn, and four speeders were making the roving for those spinning frames. The spinner complained to the overseer that the roving had so many doublings and singling in it that she could not keep her ends up.

The overseer told her to save up all she had the next day and he would show them to the overseer of carding. You can imagine that speeder frame hand's surprise when the card room overseer had him up the next day and showed him all of the bad work and told him *his* daughter was the spinner who made the complaint.

He was taking money out of his own pocket when he thought he was getting by with something.

This same reasoning applies to all the work we are doing, and if all operatives could only realize that if every person would do their work the very best they know how, we all would profit by it.

"We All Go Up and Down Together."

Cotton Comment.

(*Continued from page* 1132.)

Some consolation was derived from the statement credited to Mr. Carl Williams, and there was encouragement in the somewhat better trade advices from domestic textile market of late, and to a less degree from Manchester. However, the future course of values will likely depend very much on future trade development at home and abroad, and the future progress of the growing crop.

Having entered the critical period when climatic conditions are usually reflected in an improvement or deterioration of the crop, the trade finds the South Atlantic States relieved of late by beneficial rains, although more moisture would probably be of benefit in Alabama. West of Alabama, however, especially in the central belt, and in parts of Oklahoma and Texas, there is the apparent need of generous rains. There is one redeeming feature of the situation, and that is that the hot, dry weather is said to have exerted some control over the boll weevil.

Recently A. & M. College, Miss., reported in part: "The hot, dry weather of the past few days is effectually checking boll weevil damage in Mississippi, according to observations made by State Plant Board inspectors on 179 farms in 40 counties during the past week. The average infestation of the infested farms was slightly above two per cent compared with four percent last week and eleven percent last year."

Subsequently Clemson College, S. C., reported: "The unusually hot weather prevailing in all sections of the state has had at least one good effect; it has exerted some control over the boll weevil, particularly in fields where cotton is small. However, in spite of the hot weather, the infestation is still high in many of the 83 fields in nine counties covered by last week's survey, and there is no reason to feel that the fight has yet been won."

While the hot weather undoubtedly checked activity of the weevil, perhaps reduced their numbers somewhat, especially in the central belt, and while the South Atlantics have evidently been provided with ample moisture for the present, there is the apparent need of more rain in Alabama, and generous rains are undoubtedly needed over much of the central belt and over much of the Southwest, and unless sufficient moisture is provided the dry areas during the last half of July, the situation in those parts would not be satisfactory to enter the critical month of August when a drouth is not unusual in the Southwest.

The acreage in cultivation in the United States July 1st, as reported by the government in the early part of last month, was 45,815,000 acres, comparing with 47,067,000 acres in cultivation on corresponding date last year, or 2.7 per cent less than one year ago. The first cotton crop forecast by the government will be released August 8th.

Because of the depreciation in security, real estate and commodity values, and owing to the world-wide depression in business, any change in trade conditions is likely to be slow, as such conditions, coupled with the army of unemployed on both sides of the Atlantic, have lowered the purchasing power of the people. However, raw material is comparatively cheap, as is money, and inventories are reported to be comparatively small, which should lead to a gradual improvement in general business in the not far distant future. After all has been said and done, however, the future course of the cotton market will probably be governed mainly by prospects for the growing crop, which will likely be affected by weather developments in the near and distant future, and, of course, to some extent by future trade developments.

Records of the past were unfavorable, and it is to be hoped that the future will be brighter. Cotton textile and cotton consumption returns for June were unfavorable, and it is doubtful if July returns will show much if any improvement, but it is possible that August, when the new season opens, may furnish returns of a more encouraging nature.

ASSOCIATION OF COTTON TEXTILE MERCHANTS OF NEW YORK—JUNE STATISTICS.

Yards—	June, 1930 4 Weeks	May, 1930 5 Weeks	June, 1929 4 Weeks
Production	198,539,000	275,801,000	285,928,000
Sales	129,947,000	184,473,000	228,244,000
Shipments	182,652,000	270,056,000	252,008,000
Stocks	466,368,000	450,481,000	401,260,000
Unfilled orders	219,040,000	271,745,000	358,748,000

CENSUS REPORT.

United States— Bales—	This Season	Last Season
Consumption, lint, June	405,181	569,414
Consumption, lint, 11 months	5,735,097	6,543,900
Mill stocks, June 30th	1,357,394	1,287,740
Stocks in pub. stg. and whs., June 30th	3,104,989	1,376,704
Stocks in mils, pub. stg., and whs. June 30th	4,462,383	2,664,444
Active spindles during June	27,642,158	30,631,800

TOTAL AVERAGE RAINFALL TEXAS

Inches: Year—	1930	1929	1928	Normal
June	2.14	1.49	3.91	3.27
Nov. to June inclusive	19.16	22.94	17.05	20.43

"Budget Control"

What it Does and How to Do it

This booklet sets forth—

1. The reasons for a budget in business.
2. How each part of it should be prepared.
3. The principles of its effective operation.

Particular attention is directed to the booklet at this time, because of the peculiar importance of the budget in the control of finances and improvement of organization. The present edition is a second printing, revised and enlarged, of the original issued by Ernst & Ernst in 1925. It has forty pages with six exhibits. *Mailed on request of nearest office.*

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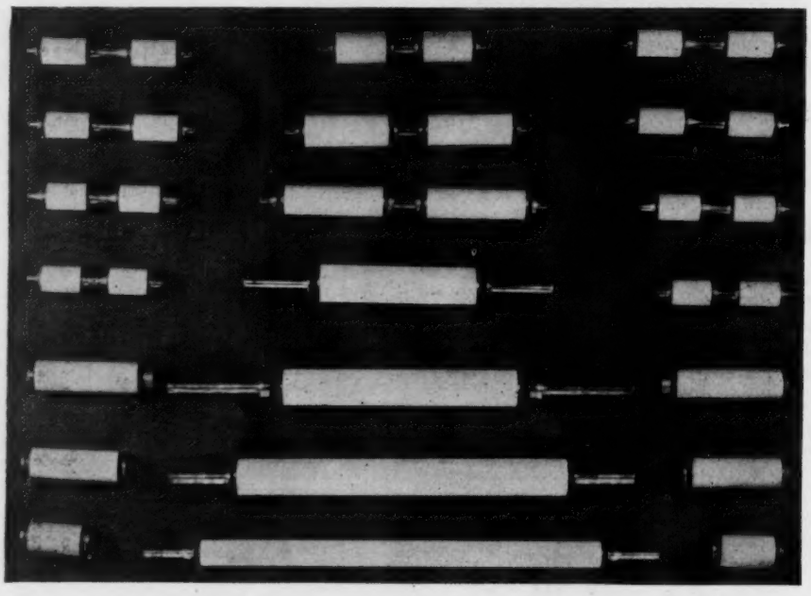

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HOW OTHER MEN MANAGE

Practical Discussions by Cotton's Readers On all varieties of Mill Subjects

Preventing Bad Work from Card Room.

It seems to be largely up to the card room, according to the several men submitting the answers below to a question on this subject.

EDITOR COTTON:

The question recently asked by "CONTRIBUTOR NO. 4759" as to controlling bad work from the card room such as slugs, black oil, etc., is a problem that all of us have, and it is, also, one that we have a continual fight on at all times. It is just another one of those things that we never get through with, and it is always a continual fight to keep this down.

By giving our method of fighting this work, I hope that we shall be able to help "CONTRIBUTOR NO. 4759" with this problem.

First, realizing that these slugs, etc., get into the work in the card room, we begin by not cleaning any of the overhead or pulleys while the machines are running. We do not blow off or blow out the pulleys at all, but wipe them out, because we have found that the heavy accumulation of lint in pulleys when blown out will be scattered over the frames and it is impossible to pick all of this off.

Second, we allow no flap rags or fan cloths, as they are sometimes called, in our card room anywhere and by eliminating these we find that a good many of a certain kind of gouts were entirely eliminated.

Third, great care and regularity should be exercised in cleaning clearers both bottom and top on drawing, slubbers and fine frames. This, in my opinion, is the place where we get more of the dirty looking gouts or slugs in our work than in any other one place, and too much care cannot be exercised in keeping them clean or in properly cleaning them.

Fourth, all of the lint accumulated on the flyers during the running of a set is picked off at the end of each doff. This applies to slubbers, intermediates and speeders.

Fifth, we also do all of the cleaning possible, such as wiping roller beams, cleaning carriage, etc., while the frame is stopped for doffing.

Sixth, creels on all the frames must be kept very clean to avoid loose lint and slubs from getting on the roving.

Seventh, roll picking should be done on medium count roving at least once a day, and as stated in regard to clearers, great care must be taken in doing this also or dirty slugs will get into the roving.

Eighth, all the roving is marked with a distinctive mark for every frame hand so that any bad work coming back from the spinning room can be identified as to who made it or from which group of frames it came.

We invite our readers to make use of this department for the discussion of any and all problems arising in the mill or the finishing plant. Questions, answers or letters need not conform to any particular style and will be properly edited before publishing. The editors do not hold themselves responsible for any statements of opinion or fact which may appear in this department unless so endorsed. This department is open to all.

Ninth, all of the bad roving sent back from the spinning room is separated by mark every day and then each of these groups is separated into the different classes of bad work, and all of this is made into a permanent record of what each frame hand is doing. Each frame hand is required to clean up and pull off all of the bad roving sent back to him each day. By keeping this record, it is very easy to ascertain where the bad work is coming from, and in cases where one frame hand has more than others we follow back to try to determine the cause for this one group of frames having more than the others. All the singlings and doublings that are made are charged to the frame hands at five cents each, and we find that we have very, very few of these two defects.

The foregoing is an outline of our general method of fighting this trouble, and we would like to add that the biggest single thing in keeping bad work out of roving, in our opinion, is the word "fight" and that it must be very carefully watched all the time and wherever it is possible to find the cause, whatever remedy is necessary should be applied.

CONTRIBUTOR NO. 4762.

EDITOR COTTON:

Concerning the difficulty which "CONTRIBUTOR NO. 4759" is having with bad work coming from the card room to the spinning room, such as slugs and black oil, will say that in our attempt to eliminate the causes of slugs and oil in the roving we have traced most of our trouble back to careless cleaning in the card room; this being the major, but by no means the only, cause.

The layout of the card room has a great deal to do with the amount of slugs in the roving. If the mill has an overhead drive there is more cleaning off to be done. In cleaning the pulleys, shafts, and ceiling, the machines should be stopped and a cover placed over them, but even with this precaution one may expect to get a certain amount of trash in the roving.

Extreme care should be taken in the cleaning of the frames, especially in the cleaning of the carriage

and roller beams, and also the rolls after they have just been oiled. The flyers should be kept perfectly clean at all times; the frame hand being careful that the clean-off rags that she uses do not come in contact with the roving.

A good oiler proves to be an asset in the card room, in that he is careful not to get too much oil in the stands, bobbin gears and top of spindles. And I might add that the bolsters should never be oiled.

A draft in the room, caused by an open window or door, can also produce an unnecessary amount of slugs.

Cotton that has been wet after it has been baled will invariably turn darker or become stained from some object that it comes in contact with, and will, of course, carry this stain into the roving, thus giving the appearance of oily roving. Also, baling tie rust will work through into the roving and give the appearance of oily roving, very similar to the oil from the roller stands.

The best way to combat bad roving in the spinning room is to train the help to watch for it at all times, and to impress upon the spinner that when a slug comes through it will break the end down, thus causing more work on her. I do not like the idea of paying the spinner a premium for the bad roving that she pulls out, as this method is abused too much, in that the spinners find ways to make bad roving, thus making it unfair to the speeder hand. Each speeder hand should have a special way of marking the roving from her frame, so that a check back can be made and an elimination of causes if they prove too prevalent from one particular section or frame, or from one particular trouble in the roving.

We have a spare hand spinner for about every forty spinning frames, and if she is not called upon to take a spinners' place during the day, she walks the alleys and takes out the bad roving that she sees.

We have experienced some trouble in the matter of oily roving that has been caused in the spinning room. This, of course, in the scavenger waste that is reworked back through our regular processes. We have located some carelessness in the oiling of the stands in the spinning room and this oil would invariably get on the scavenger waste. Also, we had some trouble from the spinner, while cleaning off, who would put up an end and then clean off the scavenger roll, thus getting oil on this waste.

CONTRIBUTOR NO. 4764.

EDITOR COTTON:

In a recent issue "CONTRIBUTOR NO. 4759" asked for a method of controlling the bad work which comes from the card room to the spinning room. I will give what I have found to be a good system for controlling this. It is a good plan to have the spinners set out as much bad work as they can find in the roving, and let the overseer of carding and overseer of spinning take this down and go over it together. By having an identifying crayon mark on each bobbin, it can be taken back to the card room and shown to the frame hand who caused the bad work.

It is frequently advisable to have a bad work sheet which is kept posted in the card room at a convenient point that shows the amount of bad work that is being done by the various frame hands, and of course, in this, as in other matters, if a hand persistently turns out an excessive amount of bad work, there is but one thing to do, and that is to make a change.

The control of bad work requires the best effort of everyone in the organization, and conditions vary so much that it is hard to lay down hard and fast rules, but it is an every day fight and where proper interest is maintained great improvements can be made.

CONTRIBUTOR NO. 4770.

The Relation of the Spindle and Traveler In Inserting Twist.

The first of what will probably be an extended discussion on this subject. You are invited to participate while it is yet young.

EDITOR COTTON:

Your contributor who signs himself "J. R. (GA.)" asks on page 1055 of the July issue, two questions which seem to have puzzled a great many mill men.

First, "What puts the twist into the yarn on the spinning frames, the traveler or the spindle? If it is controlled or placed into the yarn by these jointly, which one of them has the greatest portion of the work to do?"

Second, "When does the traveler move at the fastest rate of speed, when the quill or bobbin is empty or full? If there is a difference in the speed, how much, and how can it be determined."

I have heard so many different persons bring up this subject in the past ten years, that perhaps it would be worth while to discuss the problem in some detail, and I am giving you a little sketch, in Fig. 1, which will clarify the discussion which follows.

The starting point of the frame is represented with the quill or bobbin empty. The dotted circle in the sketch represents the position of the yarn on the full bobbin.

The twist is put into the yarn by the rotation of the spindle and traveler. The spindle furnishes the motive power, but the traveler determines the

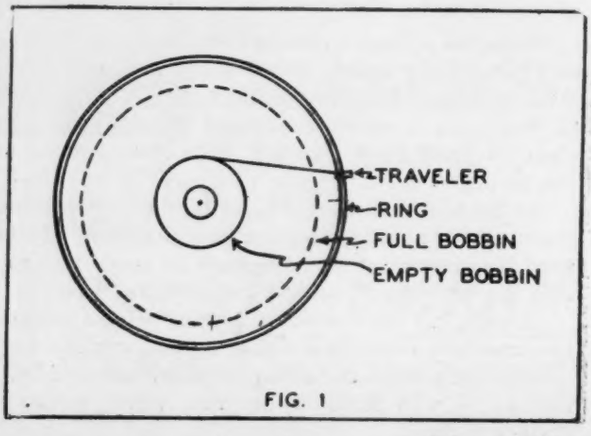

FIG. 1

amount of the twist, as the spindle and traveler do not rotate at the same angular speed. There is very nearly one turn of twist put in for each revolution of the traveler.

That the traveler does not put in exactly one turn of twist for each revolution may be best understood by taking the possible extremes of front roll speed, one being zero, i.e., with the front roll stopped, and the other being a front roll speed which will feed the yarn as fast as the spindle could wind it up. In the first case, if the front roll stood still, the traveler and spindle would rotate at exactly the same speed, because there would be no winding-on effect, and the spindle would drag the traveler at its own speed, so that there would be exactly one turn of twist put in for each revolution of both spindle and traveler. In the second case—where the front roll delivered the yarn at the same speed that the spindle could wind it up, the traveler would cease to rotate at all, and would merely act as a guide for the yarn to slide through. Consequently, it can be seen that when there is any winding-on effect, the traveler puts in slightly less than one turn of twist, but since the speed of the front roll is so small compared to the speeds of the spindle and traveler, this difference is infinitesimal, and it may be roughly assumed that the traveler puts in one turn of twist for each revolution.

It can be seen from this, that the actual function of twisting is shared jointly by the spindle and the traveler. The spindle, of course, really does the twisting, because it furnishes the twisting motion which imparts the twist, but the traveler determines the twist for any given front roll speed. To say that either one of them has the greatest portion of the work to do is impossible, as they are both indispensable on a ring frame. Anyone familiar with mules or caps knows that twist can be imparted by the rotation of a spindle without any ring, which shows that the spindle is the real source of the twist, but due to the construction and method of operation of a ring frame, both the spindle and traveler are equally important in obtaining twist in the yarn.

Answering your contributors' second question, the traveler moves the fastest when the bobbin is full. The traveler speed would naturally be the same as that of the bobbin if it were not for the winding-on, but this winding-on necessitates the spindle turning a little faster than the traveler, and of course the smaller the diameter of the package, the greater the number of spindle turns required to wind on a given amount of yarn. If the yarn was being spun on a mule cop which would be about $\frac{3}{8}$-inch in diameter, and the package was built up to $1\frac{7}{8}$-inch in diameter, then the spindle would make five revolutions when empty to wind up as much yarn as it would take on in one revolution when full, and consequently, there would be a greater lag in traveler speed with the empty bobbins than with the full bobbins.

This difference in traveler speed is almost infinitesimal in spinning, but it may assume serious proportions in twisting. Due to the high speed of spinning spindles, there is usually less difference be-

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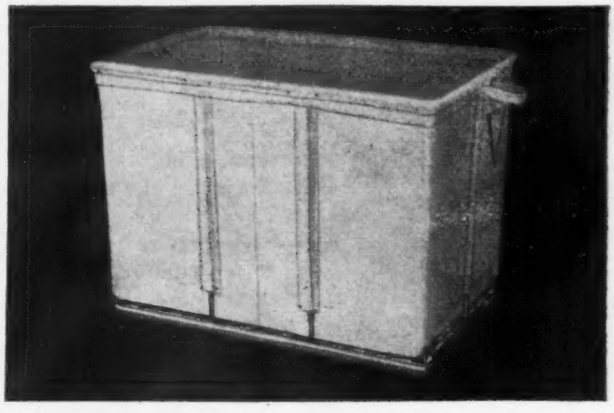

tween the full and empty diameters than there is in twisting. Also, there is usually a good deal higher twist per inch in spinning than in twisting. These factors tend to minimize the effect of variable traveler speed in spinning, so that it is impossible to determine any difference in the number of turns per inch due to this difference in speed, but in twisting high plied yarn with a small number of twists per inch, and a very large package, the difference is readily determined with a twist counter.

A simple calculation of two assumed conditions will illustrate this point. A formula could be worked out to cover any condition, but since a good many of us are a little rusty on our algebra, I am simply giving two arbitrarily assumed conditions, one for spinning and one for twisting. In the case of spinning, suppose we assume a quill has a circumference of 2 inches empty, and will have a circumference of 5 inches full. We will put into this yarn 40 turns per inch with a spindle speed of 8,000 r.p.m. This will give us a front roll speed of 200 inches per minute, neglecting the take-up due to twisting which I am not figuring, because it would complicate the problem unnecessarily. This quill, when empty, would require 100 turns per minute to wind on 200 inches of yarn. When full, it would require 40 turns per minute for winding on. There is, therefore, a difference in traveler speed between empty and full bobbins of 60 turns per minute. With an empty bobbin, the traveler would have a speed of 7,900 revolutions, and a full bobbin 7,960 r.p.m., which would give us an actual twist per inch of 39.5 turns on the empty bobbin, and 39.8 for the full bobbin instead of the theoretical 40 turns. 3/10 of a turn in 40 turns is .75 of one per cent.

In the case of the twister, we will assume a bobbin with a barrel having a 4-inch circumference, and a full package having a 16-inch circumference, and will put five turns per inch into this cabled yarn with a spindle speed of 2500 r.p.m., which gives us a front roll speed of 500 inches per minute. To wind this yarn on to an empty bobbin will require 125 turns per minute, and on a full bobbin 31.2 turns, which gives a traveler speed with the empty bobbin of 2,375, and with the full bobbin of 2,462.8, so that the actual turns per inch figure 4.75 for the empty bobbin, and 4.93 for the full bobbin instead of the theoretical five turns. This gives a difference of .18 of a turn, which is 3.6 per cent of the theoretical five turns per inch.

A comparison of these figures shows that there is approximately five times the error in one case that there is in the other.

I hope that this little discussion will completely clarify the matter for your contributor, and be of interest to any other person who may be somewhat puzzled in trying to analyze this proposition.

CONTRIBUTOR NO. 4789.

The further discussion on the subject covered in the foregoing letter will probably be interrupted in the September number by the presentation in these columns of a very interesting article on "Theoretical Versus Actual Twist," which, while not in direct answer to the inquiry in question, will have an interesting bearing upon the subject.—The Editor.

Causes of Roving Breaking Back.

A most valuable assortment of answers to this question, which at the same time develop a lot of other useful information.

EDITOR COTTON:

I note the questions of "CONTRIBUTOR NO. 4775" with reference to the causes of roving breaking back in spinning frame creels. He wanted some discussion as to what would be the main causes of breaking back, assuming that the creels are level and that the skewers and other points are in good shape.

To my mind, the main causes of roving breaking back in the creels on the spinning frames are: Improper twist in the roving, improper tension on the roving frames, or improper position of the roving rods on the spinning frames, I note that your contributor wants to assume that the spinning creels are level and that the skewers and other points are in good shape. I trust that he means also that the trumpets on the spinning frame are also in good shape, as in the event that they are not, this might cause some of the roving to break back.

I was in a mill the other day which had made some tests on ends down on spinning frames, and they had found that they had 50 per cent more ends down when the bobbins of roving were less than half full than they did when the bobbins were more than half full. They were trying to remedy this to a certain extent by changing the position of the roving rods on the spinning frames.

I think the two most important points to consider for this problem are the twist in the roving and the tension on the fly frames. A very good rule for figuring the proper twist for roving is as follows:

$$\sqrt{\frac{4 \times \text{hank roving}}{2 \times \text{length of staple}}}$$

A lot of mills try to approach the twist factor recommended by machine builders, but I think that these standards are not applicable to the majority of mills.

We have made a number of tests for ends down on our spinning frames, and on our 13.50s warp yarn, made out of 2.00-hank single roving, the ends down averaged between 50 and 60 per 1,000 spindles per hour. All of our spinning is regular draft. We generally make tests by the thousand spindles for three or four hour periods, but never find over two or three ends down caused by roving breaking back during a complete test. This would give us only a fraction of one percent of the total number of ends down per thousand spindles per hour caused by break backs. This may seem unusually low, but we feel that we have unusually good tension on all of our roving frames, and we try to maintain twist in our roving that will keep the roving from breaking back. I understand a lot of mills try to put just enough twist in the roving to keep it from breaking back in the spinning creels, when they feel that all other factors have been considered.

M. J. (ALA.)

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EDITOR COTTON:

This replies to the question of "CONTRIBUTOR No. 4775", who asked, "Assuming that creels are level, skewers, bobbins and the spinning frames in general are in good condition, what are the main causes for roving breaking back in the spinning frame creels?"

Skewers protruding above the top board of the creel so that the ends of the skewers are touching the roving laid up on the creel are one probable cause. Others are: waste gathering around the bottom of the skewers, bobbins made too large in diameter so that they touch when two full rovings are put in together, thick and thin spots in the roving, due to dry rolls on the roving process, clearer waste, waste in the top and hollow arm of the flyer, bad piecings, condition of roving machines, etc. There are other items that enter in, but we are assuming considerable, so let us assume that the operator is trained properly and is efficient.

Following are some figures taken from tests made some time ago, but they will be good averages for this article, in that the mills where these tests were run are among the best mills of the country. The cotton used was 1-inch and 1 1/16-inch plus, Strict Low Middling to Middling, for 30s yarn; and 1 1/8-inch Strict Middling for 50s and 52s.

	Regular Spinning Double Roving			Long Draft Spinning Single Roving		
Hank	10.00	4.25	6.00	2.25	1.65	1.55
Yarn	50.00	30.00	30.00	52.00	30.00	30.00
Draft	10.00	14.1	10.00	22.2	18.3	19.6
Total Ends Down per 1,000 spindles per hour	55	50	45	75	60	100
Roving Broken Back per 1,000 spindles per hour	2	1	1	None	.15	.50
Percentage of Ends Down Due to Roving Broken Back	3.63	2	2.22	....	.25	.50

In making any end breakage study, the end breakages are generally sub-divided as follows: Material, Machine, Operation, Unclassified, Cleaning, and Doffing.

Under the division *Material*, we have: Bunches in roving, *Roving Broken Back*, Singlings, Doublings, Hard Ends, and Caused by Hard Ends. Singlings in roving do not always cause the roving to break back, but will, generally speaking, cause an end to break down with ordinary twist used. Doublings will never cause roving to break back—not from what little experience I have had with end breakage studies. Hard ends seldom if ever cause roving to break back, unless there is a soft spot or too little twist after the length of too much twist. Bunches in the roving — sometimes thick and thin spots—will cause roving to break back if the spot or bunches are soft and without sufficient twist to allow the right amount of pull.

The long draft in the foregoing test figures appears to have the highest end breakage, but the least amount of roving broken back. Where there are two rovings fed instead of one, if one is slightly weak the other one may tend to keep the end up during some of the unevenness.

Y. F. (R. I.)

EDITOR COTTON:

Answering your contributor's inquiry as to the causes of roving breaking back in the spinning frame creel, since he has assumed that all of the skewers and

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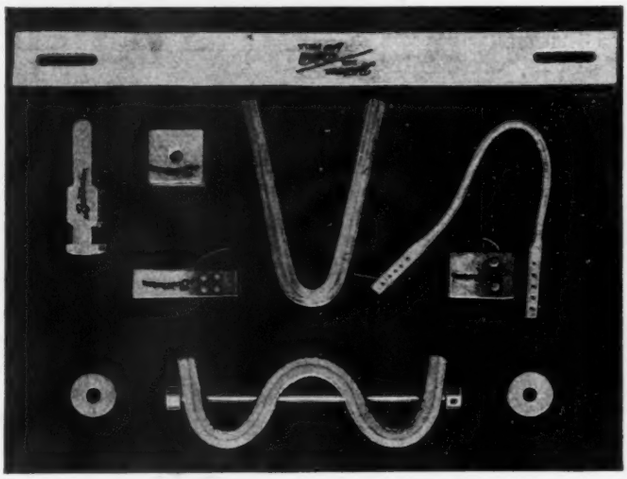
Another comes from a Vermont mill saying, "Our experience has demonstrated to our satisfaction that Bondaron Belting is better, and for that reason, cheaper, than any other belting that we have ever tried."



A large Pennsylvania silk mill tells of extreme satisfaction secured with Bondaron Silk Loom Pickers, while a different silk mill in the same state writes and says that they have been using Bondaron Spinner Belt continuously for three years and it is still in A1 shape!

These words of commendation are all unsolicited and they prove in themselves our claims of superiority for Bondaron Textile Leathers.

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Bondaron Harness Straps
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Bondaron Cotton Loom Pickers
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creels are in good shape, the only thing left that will cause roving to break back in the creels is lack of twist, if his roving is good.

There are very few overseers of spinning who do not want an extra tooth or two of twist in their roving. By "extra," I mean a tooth or two more than perfect conditions call for; and until the card room can furnish daily to the spinning room a roving that does not vary outside of reasonable limits, the spinner is justified in having the extra twist in his roving.

Now, let us consider a few of the things that will cause the roving to go beyond "reasonable limits." One is light streaks. If we do not allow for moisture in the picker room on a wet day, but hold the weight of the laps on the same point, regardless of the weather, we will find that by the time this cotton has reached the spinning room it has lost this moisture and is light. Then, if we haven't enough twist in the roving to take care of a hank roving about ten points lighter than we wish to run, we will find that the extremely light bobbins will break back (for there are always some bobbins that will go lighter by ten to fifteen points than the average number.) Another trouble, as you no doubt know, is an excessive amount of singlings, but this can be caught by the spinners, so we would have no difficulty in locating this cause.

The last—and I consider it the most universal—cause of the trouble mentioned, is *stretched roving*. Unless we have a carder who appreciates the good running of the work in the spinning room more than that in his own room, we will find that he will run the ends on the speeders a little tight. This may not cause trouble all of the time, unless the cones on the fly frames do not have the correct curvature, which causes the tension to vary throughout the doff. But assuming that the cones on the speeders are correct, the bad effect, caused by the carder running the ends tight, is experienced when the weather changes rapidly from wet to dry, the tension gears are not changed soon enough and the results are break backs and bad running spinning.

My advice, therefore, is to put a little more twist in if necessary and then correct the defects that cause irregularities, thereby making it possible to later take the "extra" twist out and still have good running spinning.

I. M. (S. C.)

Suggestions for Getting a "Leathery" Feel.

EDITOR COTTON:

I note the inquiry of "CONTRIBUTOR No. 4733," who wishes to secure a hard leathery feel on 76x48, 3-harness goods, 13s warp and 17s filling.

According to my experience, a harsh feel on cloth can be secured by putting more twist in the warp and also in the filling, and by adding more starch and gum.

As to cooking the size, it can be overdone either way, that is he might cook his size too much or not enough. I would also suggest that on the loom, the warp should not be run too tight.

P. T. S. (MAINE.)

Interesting Information on Loom Belts.

Would you think a question on why fixers put starch on loom belts would develop the interesting and valuable information below?

EDITOR COTTON:

You have just published an interesting question from "CONTRIBUTOR No. 4768", who asks for some discussion "as to the reasons why overseers allow their loom fixers to sprinkle corn starch on loom driving belts." In answer to this I beg to submit the following experience as information.

When a loom driving belt becomes sticky or tacky, so that there is absolutely no slip or practically no slip, it will in most cases cause the loom to bang off. When a loom belt is sticky, you can put your hand on the lay or reed cap and you will notice that the loom is jerking badly, and this prevents an even throw of the shuttle, resulting in the loom banging off.

The excessive humidity in weave rooms is probably the cause of most loom belts getting in this condition. Also, where looms are driven from below and the basement where the shafting is located is damp, loom belts often give trouble.

When a belt gets in this condition, the easiest remedy is for the fixer to sprinkle starch on the belt, which eliminates the sticky condition and the loom runs smoothly. But, the application of starch usually makes the belt slip excessively, thereby greatly reducing the production of that loom.

The writer has given this loom belt problem a great deal of thought and has experimented extensively to find a practical remedy for the loss of production resulting from the practice of using corn starch, and at the same time find something that would not give the fixer trouble by causing the loom to bang off.

One method we have found gives fairly good results on an oak-tanned belt, and most loom belting is oak-tanned, for reasons I will explain later. This method is as follows: Make a mixture of five gallons of gasoline, one gallon of turpentine, and one gallon of neats-foot oil. Clean the belt thoroughly with this solution. This can be done fairly well while the belt is running on the loom, but not as well as it could be done by taking the belt off. Simply wrap a piece of cloth around a stick (a piece of old broom handle is good), saturate the cloth thoroughly with the solution, and hold against the face of the belt. When the belt is well cleaned and dry it will generally put the loom up to speed and still not cause it to jerk and slam off.

The belt will now probably be very dry and really should have a dressing of neats-foot and castor oil to soften the face, add life to the belt and make it hold the loom up to speed. Care must be taken, however, in the application of the neats-foot and castor oil, or there will be trouble with the loom jerking and banging off again. It will probably take several hours after the application of the neats-foot and castor oil for the belt to pull the loom up to normal speed.

It is a characteristic of loom belts to slip and re-

sult in a loss of production, and this is one of the greatest talking points in factor of motor-driven looms. In a mill of 1,000 belt driven looms, it is conservative to state that 10 to 30 per cent of those looms are not making the full calculated speed. Now, let me say to the reader: before you say this statement is not true, go count a hundred looms or have someone do it, and you will see. It is true that *your* weave room *may be* an exception, but very likely you can gain the production of from 3 to 8 looms in a thousand by having all the looms making the speed they are supposed to make. If you have 200 looms out of 1,000 losing four picks each, that is 800 picks, and that divided by the picks the other looms are making (that is, the full speed) will show how many looms are being lost out of the 1,000. If you have 40-inch looms at 160 picks, then 800 divided by 160 equals five looms that will be gained if they can all be put up to speed.

I once attempted to start up a weave room where the loom belts which had been bought were of a very soft tanned nature, and we simply had to take them off, but I have always had an idea that we could find something which would be better than an oak-tanned belt. The oak-tanned belt seems to lose the filler put in by the belt manufacturers, and gets hard and the face gets so slick it is almost impossible to get it to pull the loom up to speed.

In 1926 we took 24 looms and installed two makes of soft tanned belt on 12 of them (six of each kind of belt). On six other looms we installed a canvas belt and on the other six we put new oak-tanned belts.

These soft tanned belts were not of the same kind of finish or tannage as the ones referred to where I attempted to start up a weave room with soft tanned belts.

It has certainly been interesting to notice the record of these belts as to speed. We take the speeds about every three months, and as they are all on the same shaft and under the same section man, we feel that we are getting a fairly good record.

I was very much surprised to see the oak-tanned belts hold up so well in speed, and as long as they did, because my personal opinion was that the soft tanned belt would give more speed after they had been on probably six months or a year. Anyway, it shows that we should not be so sure of *anything* until we have proven it by test.

If space would permit I should like to show this record, which is over four years old now, but anyway, if several mills will start a record by equipping about six or eight looms each with soft and oak-tanned belts, we will all learn something. And if someone will find a way to fasten the ends of a canvas belt together so it will not come loose, that will be a good thing. Almost any leather belt manufacturer will admit that canvas belt will slip less than leather, but the trouble I have always found has been to find a proper buckle to hold the canvas belt.

CONTRIBUTOR No. 4780.

More answers next month. Send yours in.—Ed.

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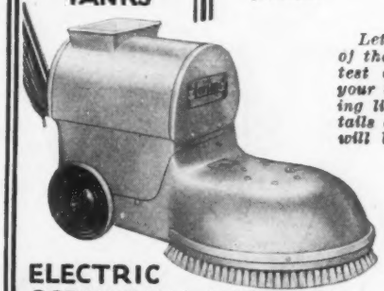

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Answers to Question on Shade Change.

Some opinions on this problem which was submitted recently. Other readers with experience are invited to contribute their views.

EDITOR COTTON:

This replies to the question of "CONTRIBUTOR NO. 4761," who said that he has difficulty with the shade appearing suddenly in 2.30 denim filling in several cuts for a few days, then disappearing suddenly. He said that this is not always on the change of a quill in the shuttle, nor the length that a quill will weave across the cut. He said that very often it looks as if the off shade and correct shade were on the same quill, and that it is difficult to determine where the shade goes out. He said that it will show up very plainly from 6 inches to 12 inches across the cut, then gradually fade out into the proper shade.

This man did not state whether this filling is white or colored, but my guess is that it is colored and that it is not uniform in shade. It very frequently happens that one batch or run of dyed cotton will be slightly different in shade from the preceding batch, and this will occur even where several bales have been mixed together. Also, even when a considerable number of dyed bales have been mixed together. Unless all of the bales were about the same color to start with and unless that run has been pretty thoroughly mixed, the run will be shaded within itself. As a consequence there will be a variation of color between some of the filling quills and sometimes on the same quill, and this variation will be so slight that it is not possible to detect it with the eye, but it will show up in the cloth.

The only way to avoid this is to mix each run thoroughly and keep it separate all the way through the mill from the preceding run and the run following. This is a very familiar thing to all colored goods mills and every man connected with them has doubtless in time found himself stacked up against several boxes of filling which is apparently uniform in shade, but which will shade the cloth. Even when some slight difference between quills is discernible, it is not possible to pick them out accurately enough to avoid some shades in the cloth because the eye gets tired, and after working on it for a few minutes all the quills look alike.

The writer has been hoping for several years that someone would develop a machine which could shade a lot of off-shade filling so as to avoid such trouble. The tobacco manufacturers have a machine which automatically grades cigars according to color. It works with a selenium cell and it seems that something like that could be devised to help out the poor mill man who finds himself with a lot of filling that he can't run and can't throw away.

If this man's filling is not colored, it may be a case of mixed numbers which might occur from lighter or heavier roving being mixed in the work, either in the card room or the spinning creels or heavier or lighter filling mixed in after being spun.

If the loom is not taking up or letting off uniformly, the spacing of the filling threads will vary enough to vary the shade of the cloth. This will fre-

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quently happen on the change, and give the impression of a complete change in the shade of the cloth, whereas the change will only be for a few inches and the shade will get back to normal in a short distance. A pick out place or anything else that interrupts the regular spacing of the filling threads will do this, and is sometimes very confusing and hard to overcome.

A variation in the speed of the slasher while the warp is being sized will also vary the shade of the denim according to whether more or less size is put on at that particular spot. Whenever the slasher is slowed down to cut a lap, or stopped to doff, the warp gets more size on it, and these places are quite easy to find in the cloth. A heavy slasher blanket will leave a mark across the warp that is noticeable, and a rather light blanket should be used and the end of the cloth combed out as thin as possible.

CONTRIBUTOR NO. 4772.

EDITOR COTTON:

In reply to the inquiry of "CONTRIBUTOR NO. 4761" who asked why the shade will suddenly change in 2.30 denim filling in several cuts for a few days, and then the trouble will disappear just as suddenly.

Our inquirer did not state whether he had reference to white filling or colored filling. The writer has had shade trouble on both, and will state what he believes caused the two shades.

In using white filling, it is apparent that two shades are caused by humidity conditions and not by the filling. By close observation, I believe it will be possible to detect a distinct change of shade when the loom is started in the morning. The threads from the fell of the cloth, through the reed and harness, back to the beam is exposed to the humidity more than that on the beam, and this shade is likely to be changed. While the loom is running, the warp yarns are exposed the same amount, and makes a uniform shade. When the looms stand over night, there is apt to be a change in humidity; if so, the start will be a different shade and will gradually blend into the regular shade. This change of shade will seldom ever be seen in over two yards of the cloth—the length from the fell of the cloth to the loom beam. The reason this shows in the 2.30 denim more than the other grades is that 2.30 is usually dyed lighter and is more sensitive to change. All the looms on 2.30 may not show a change, as some may be nearer a humidifier, window, steam pipe or located in a corner where there is an air pocket.

If our inquirer will keep his humidity uniform over night, I believe his trouble will be eliminated.

Colored filling will sometimes show two shades at the change of quills, which may be one of several causes. It is hard to dye raw cotton uniformly, and two dyeings may be a shade different, which, of course, would cause two shades in the cloth. Uneven roving or slack spinning bands will also make a bobbin of colored filling a different shade.

It might be that some of the warps of "CONTRIBUTOR NO. 4761" are getting damp over night, thus making two shades on the start-up.

CONTRIBUTOR NO. 4771.

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Preparing Warps for Belting Duck.

Two letters giving some worthwhile information on a query published some several months ago.

EDITOR COTTON:

In reply to the questions of "CONTRIBUTOR No. 4710" in a recent issue, concerning preparation of warps for weaving belting duck, would like to offer a few general suggestions that might be of some help to your correspondent. I am anxious to learn more about this myself, so am not posing as an authority on the subject.

An old mill man was talking with me some time ago, comparing the old time methods of warp preparation with our modern ways. The methods employed less than twenty years ago seem crude indeed as compared with our way of doing this. But no doubt some fellow will come along some of these days and get up some plan of beaming that will make the methods of today quite out-of-date.

Concerning the first question as to whether it would be better to make the loom beam on the warp compressing machine direct from spools in a creel back of it; or whether it would be better to warp the yarn from creels onto section beams, and then double several of these warps into a loom beam on the warp compressing machine, the question involves quite a lot. In the first place how much duck is your correspondent planning to make? What equipment does he now have? Is his company planning, or at least in position to spend quite a bit of money for new beaming equipment? Does he plan to run special lengths on his twisters? These questions would have to be answered before one could say just what would be best in his particular case.

Perhaps the simpler method is to warp direct from spools in a creel onto the loom beam in the warp compressing machine. But even this plan has certain disadvantages. When the creel of yarn runs down it is necessary to hold the beamer until the 1680 ends could be tied in, which is no small item. Then there is the waste problem. There is no doubt that the use of the creel beamer has a tendency to increase waste, account of the twister spools not running out together.

As to the best type creel, the points to be considered in determining this would be, (a) a size that will carry the required number of ends without occupying excessive floor space; (b) accessibility to creeler help; (c) correct tension, as nearly as practical, on the individual ends. As to the best means of bringing the yarn to the tension rollers, each section of the creel will have some sort of eye board, then there will be an eye board or holey board just behind the tension rollers. The main thing is to be sure that the yarn is straight. There should be a separate hole for each end. I see no reason why split rods should be used at all with a creel beamer.

Concerning the size of the loom beams under the conditions that he outlines, that is something else that brings on more talk. With a small beam head very little handling equipment is necessary. While with the larger heads an overhead track system is essential, and that involves quite an item of expense, so in this case he would have to be governed by the amount of money available.

As to the general questions that he asks; most of the concerns that buy duck also issue certain specifications that must be met by the manufacturer before the goods will be accepted. So the grade of cotton and the twist per inch will be governed almost entirely by what is necessary to meet his specifications, and by certain local conditions that differ at most every mill.

Gummed tape works very satisfactorily on most all kinds of warps, if not put on too wet, and if pressed down promptly before it has time to dry.

Insurance regulations might prohibit running the beams under, unless sufficient guards are installed. Since the delivery roll is also usually the measuring roll, running the beam under gives better frictional contact of the yarn on the roll, because more of the yarn touches the roll than if the beam is run over.

Good results can be obtained with either a regular expansion comb or with the positive expansion comb. If he has either of these I would not suggest discarding and buying the other.

I trust that these few remarks may be of some value to your contributor, but am looking forward with interest to other replies that I feel sure that some of the more experienced men will send in.

CONTRIBUTOR No. 4022.

EDITOR COTTON:

I noticed in a recent issue of COTTON some questions from "CONTRIBUTOR No. 4710" on weaving belting duck. From the questions asked by him I gather that he is just starting in on heavy goods for his first time. If this be the case, then I would like to extend my heart-felt sympathy to him, and advise him to do a lot of looking around before undertaking the manufacture of these goods, for, as I will explain later, the requirements are very rigid. In other words, I think it would be a good idea for "CONTRIBUTOR No. 4710" to visit a number of the mills that are making belting duck in order that he might become just as intimate with the details as possible.

He stated that his warp yarn number will be 7s/7, or other combinations to be the equivalent of approximately 1s yarn. His twister spools are 8x5. The cloth to be woven by him is 60-inch, about 28x19, which will, of course, give him about 1,680 ends on the loom beam. He stated that they had a warp compressing machine which would turn out a beam 62 inches between the heads.

His first problem seemed to be whether it would be better to make the loom beam on the warp compressing machine direct from spools or other packages in a creel back of it; or whether it would be better to warp the yarn from creels onto section beams, and then double several of these warps into a loom beam on the warp compressing machine. I would say every time to make the loom beam on the warp compressing machine direct from spools or other packages in a creel back of it. By doing this a much more uniform tension may be obtained on the yarns. Where it is put first on section beams, a different tension of the yarns on each individual beam is usually

the result.

"CONTRIBUTOR NO. 4710" also asked for the best type creel to use when making the loom beam directly from the creels, and any other information as to the best means of bringing the yarn to the tension rollers on the warp compressing machine. I have found the V-shaped creel very good. We pass our yarn from the creel through what is known as a holey-board or eye-board, which is simply a board containing a large number of porcelain eyes arranged in vertical and horizontal rows. All yarns from the upper tier of spindles on the creel are passed through the top horizontal row of eyes on the holey-board; those from the spindles directly below the top tier through the eyes in the second row from the top on the holey-board, etc. Then from this holey-board, we pass the yarn through an expansion comb and onto the machine.

Our contributor said his cuts were to be 300 yards in length, less contraction, and asked what size loom beams would be best to use under such conditions. I would advise a 32-inch beam head.

He went ahead to say that if the warp is put on section beams on warpers, and then doubled into a loom beam on the warp compressing machine, he would like to know the best arrangement concerning the number of section beams that should be used. Of course the size of the creels is the determining factor as to the number of section beams required, but, where the size of the creels will permit, the smallest number of section beams that all of the ends can be placed upon should be number used. For example, it would be better to run five section beams of 336 ends each than six beams of 280 ends. This is due to the fact that the smaller number of section beams used will require less time and labor than the larger number of beams.

In regard to his question as to the best method of controlling the tension on the ends from each individual section beam, we have found that by hanging a grass rope with a two pound weight attached to it over the flange of the beam head we are able to obtain the desired amount of tension. This rope is placed in the groove of the flange, and care should be taken to see that the weight placed on each beam is the same. We have found a grass rope much more satisfactory than any other kind of rope, as there is less gumming with a grass rope.

As to running the different sheets all over, without touching until they reach the tension rolls, or as the method used on slashers, that is over and under, I think that there is so little difference in results obtained that one opinion or decision in the matter is as good as another.

"CONTRIBUTOR NO. 4710" asked the following questions: (1) What grade of cotton should be used for this work? (2) What twist per inch in spinning, and what twist per inch on twisting? (3) On the compressing machine, is it better to use clamp or gummed tape on the end of the loom beam? (4) On the warp compressing machine is it better to run the beam over or under?

In answer to his first two questions, I will say that this depends entirely upon what his consumers demand in their specifications. Specifications demanded by different consumers are very varied, as well as very rigid. So the grade of cotton to use and the twist per inch is not for the mill man to decide, but something that the buyer requires.

Answering his third question, I will say that it makes very little difference as to whether a clamp or gummed tape is used on the end of the loom beam. We use a clamp, but believe that tape would be just as satisfactory.

For the safety of the employees, I think the beam on the warp compressing machine should always be run over, instead of under. There is practically no difference in the quality of the work obtained, but there is a vast difference in the amount of danger involved. We ran them under for awhile and one of our employees while reaching in to pick something out of the warp got his hand caught and came very near losing an arm. We run them all over now.

"CONTRIBUTOR NO. 4710" asked some questions which I have failed to answer because I believe they applied to light work rather than heavy work. However, I hope that I have been of some help to him.

CONTRIBUTOR NO. 4712.

"Wash's" Opinion of Oil Spraying.

EDITOR COTTON:

I noticed in the November issue that J. J. BROWN replied to my article on oil spraying. He claimed that I have not given oil spraying much thought, for, by my own statement, I had made up my mind concerning it long ago. As a rule, when a man makes up his mind there is usually one or more reasons for his doing so.

Now taking MR. BROWN'S article apart and examining it. In the third paragraph he states: "If 'WASH' is as familiar with cotton, from the seed to the mill, as I believe I am, he will appreciate the use of an oil to replace some of the 'life' taken from the fiber in drying it out, when it is not given time to absorb all the oil needed from the seed."

Now, as I understand the structure of the cotton fiber, it is a filament of hollow spiral or collapsed tubular form, with delicate waxy walls, and the normal amount of moisture in it is variously estimated at from 7½ to 8½ per cent.

At this point I would like to refer Mr. Brown to the regain tables of Hartshorne. I know of no better authority. In the tables it is found that, in the first place, all dry fibers are poor conductors of electricity and are therefore easily susceptible to being so electrically charged as to render manipulation difficult, whereas, the presence of moisture in fibers renders them good conductors of electricity, so that there is no tendency for them to become charged with static electricity. It is further to be noted that oil in fibers either existing naturally or artificially applied, renders them particularly bad conductors of electricity, such fibers in particular being difficult to manipulate without proper moisture.

In his article MR. BROWN says, "Nature converts the cotton seed oil into a wax which protects the fibers by forming an outer coating. This becomes hard and

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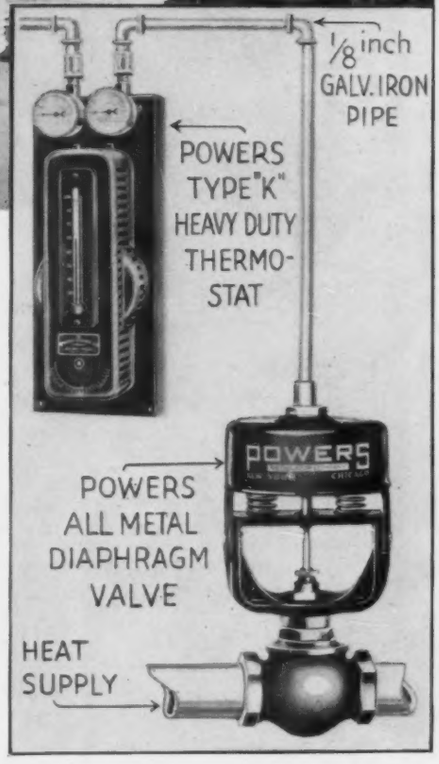

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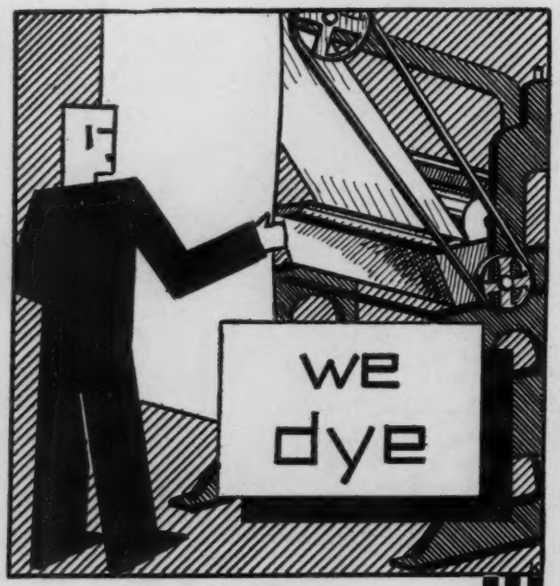

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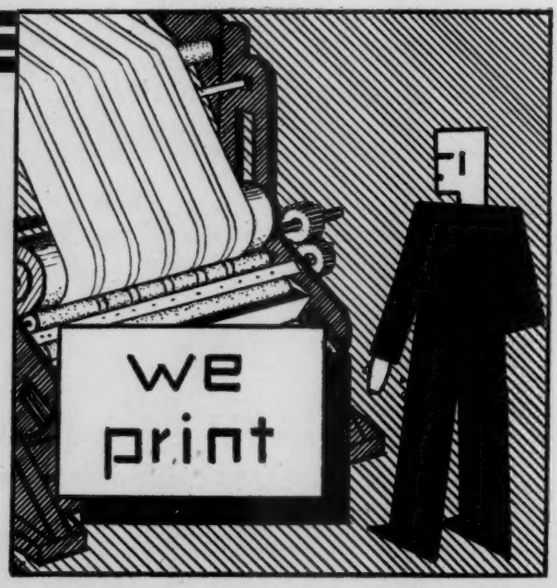

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harsh, giving the fiber the ability to produce static electricity, with which we are all familiar. This is caused by friction; and the amount by which we can reduce it, and the more of this we can do, the better the work will run."

Then, after admitting the foregoing, MR. BROWN goes right ahead and implies that by applying another coating of oil that static electricity will be destroyed. However, I will still abide by what Hartshorne's tables said about oil causing the fibers to be bad conductors of electricity. If oil is a bad conductor, then surely the remedy calls for water, and not more oil.

In his third paragraph, MR. BROWN admits that nature is all wrong, and that we do find short fibers in a bale of cotton, but later on in his article he claims that all of the short fibers are broken ones, due to the fact that they did not have a coating of oil.

The sixth paragraph of MR. BROWN'S article put me in a state of quandary. He claimed that the short fibers do not exist at the web, and that it is impossible to get enough oil on cotton to hold the very short fibers in these processes. If the oil does not, what does? He goes ahead to say, "It could not 'plaster,' as 'WASH' calls it, the fiber enough to hold it in." It is very evident that Mr. Brown does not like the word plaster. What is the difference between plaster, coating or penetrate? They all mean or refer to an external application.

As a rule we have a loss of about 1½ to 2½ per cent of foreign matter at the pickers, the percentage, of course, is governed by the settings and grade of the raw stock. On the card we have a loss of four to five per cent. If the oiling will make dust the only waste, as claimed by MR. BROWN, then it must at least save three per cent on both the pickers and cards. To any mill running 45,000 pounds per week, we would have a saving of about 1,300 pounds of raw stock.

There is one point about which I would like to make myself clear—that concerning the setting of the front knife plate. Although the front knife plate can be set to reduce the strips entirely, that is the last thing I would do. This plate should be set according to the length of the staple. When this is done the ring spinner will bless you.

MR. BROWN states that the ring spinner should be the one to judge the value of oil. Then according to the Hartshorne tables, the ring spinners would decide in my favor. In fact it was the complaint of the ring spinners that caused us to discontinue the use of oil spraying.

According to MR. BROWN, there is no fly or short fibers in any process. He admits they exist in the bale, and, as we all know, they are not destroyed by the oil, so what happens to them?

MR. BROWN differs with me as to the principle of the card. He claims that the card was not built to clean, but instead to separate the fibers so that the succeeding machines might have a chance to parallel them for drafting. Then he claims that the card does clean, and that the better the cotton is cleaned before reaching the card, the better web will be produced at the front. It seems that I have heard of that before.

However, the principal objects of the card are as follows: (1) the removal of dirt, especially the lighter

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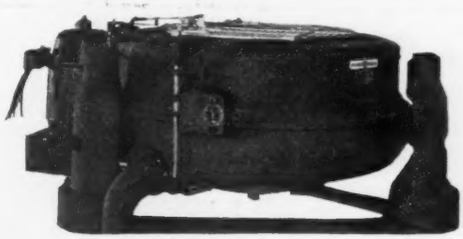

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impurities which are too light to have been removed by the centrifugal force of the beaters, (2) to separate the fibers, (3) to parallel the fibers as much as possible; and (4), to reduce the lap to a sliver.

All practical carders will agree that the pickers will not remove the lighter impurities.

In closing I want to give two good reasons for making up my mind as regards oil spraying several years ago. First, I prefer humidity to oil, because the addition of moisture in all fibers adds weight, pliability, elasticity and flexibility, thus making the fibers easier to manipulate. While on the other hand, dry or oiled fibers are poor conductors of electricity and harder to manipulate. Second, the ingredient does not hold together. At one time you add more oil than at another time. The oil continually works to the top of the tank. For this reason the same percentage is not attained at all times. To prove this, it is only necessary to raise the cover of the tank in the morning, especially Monday morning, and it will be seen that most of the oil is at the top.

No man can justly accuse "WASH" of not having given great weight and thought to every article he has written for this department, and since my first article in 1913 I have always been able to back my arguments with facts, which I believe have worked to our mutual advantage.

As a special favor to me, I would like very much to hear from "OLD TIMER" and "THIRSTY COTTON" on the matter.

WASH (R. I.)

College Students and Practical Men.

One of the latter gives some sound advice to the former group, for use when they get into the mill.

EDITOR COTTON:

It has been the tendency of many to give the college student or graduate a margin of advantage over the practical man due to the expense that is usually incurred by the student in obtaining his education. Then too, many college students have developed personality to such an extent that it is harder for an executive to deny them when they make application for work.

The practical man should be judged from the interest that he puts into his work. If he has sufficient education to master the details of his work, and uses his spare time to study in order to learn more about his job or the job above his, then he is a man that should be considered in line for promotion. It is likely that such a man will also be found to take an interest in the man under him, helping him in any way that he can. If night schools are held, the chances are that this man will be found there.

Many professional men do not consider the average high school or college graduates good prospects. I will not express myself on this matter, but will say that many students leave the halls of learning, their sheepskins tucked sungly under their arms, and go out to conquer the small, small world with a very domineering spirit or attitude and get a good case of *megacephalitis* (big headedness.) Many men who have worked up from the ranks develop this also, but

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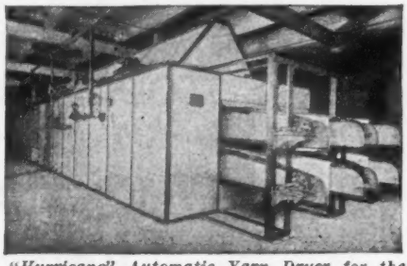

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I believe that they can, as a rule, really stand success better than the other fellow.

A logical method that I can see for the college man is for him to enter the mills or industry with the idea of making good. Then when the superintendent finds out that he is there for that purpose he is going to give him a chance, for he realizes that he has a good foundation upon which to build, and possesses at least the potential capabilities of an executive.

The college student should start in and learn how to operate all of the machinery of the departments or department that he wishes to specialize in, then get down and learn the mechanical end, such as fixing, etc. He has already learned the methods of calculations pertaining to draft, waste and production, so it is best for him to learn next not to be afraid of grease and dirt. He should not be allowed to think that he will never have to wear the workingman's attire of overalls with a pocket full of wrenches, hammers, screw-drivers, etc. Then he will not entertain the idea of being a boss in the beginning.

We must admit that education is a wonderful asset, but many successful men have no education to speak of. Some very good practical men that I have known were just as good mill men as any that have ever existed—yet they could hardly write their names. Still, I believe that every one of these men would willingly admit that education is the foundation of everything. (I admit that I haven't enough myself, but I am studying at home and at night school.)

It is true today that many men know the technicalities of the textile industry at a surprisingly young age, older men having taught them the experience of their lifetime in a comparatively short time. I do not believe that there is one old practical man in a thousand who will refuse to help a younger man, and their knowledge is well worth seeking.

It has been the ruin of many a young man in his early life to give him a high position. He gets the impression that he is "Mr. Somebody," and doesn't care which way the cradle rocks. It would be much better for the college graduate, as well as the employer, if all of them were forced to learn something about the working end of the business.

Then when the young man is put into the business to learn these things he should be encouraged by his superiors. They should show him that they have an interest in his success, for the position that the young man possesses in the beginning is the shadow of his success and he can always look back to that starting point.

It is unfortunately true that in some instances men who have mounted high on the ladder of intellectual achievement have nullified their usefulness by contracting *megacephalitis* (big headedness.) Their teachers, who had spent many hours imparting knowledge to them, then receive the greatest disappointment of their lives, for they had visualized only success for them.

J. R. (GA.)

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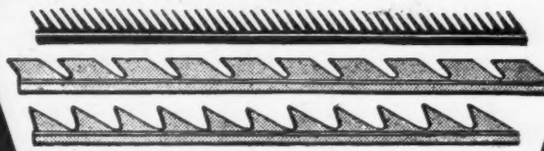

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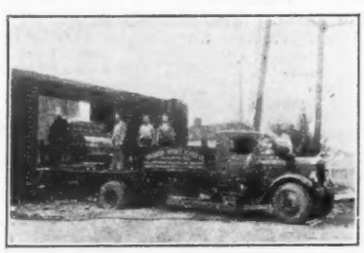

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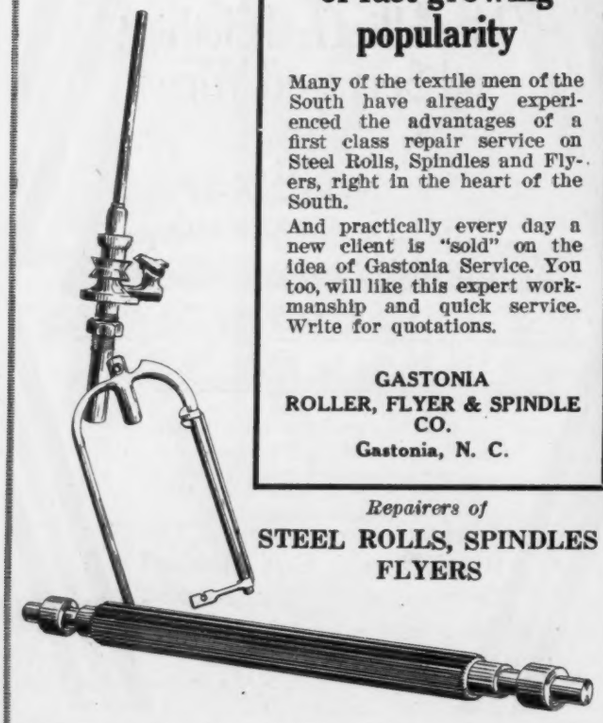

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Charlotte, N. C.

Carolina Textile Sheet Metal Co.
280 N. Church St. Spartanburg, S. C. Phone 2940
Sheet Metal Workers Catering to Textile Mills Only

Manufacturers of	*Rebuilders of*
Slasher Hoods	Card Screens—all makes
Quill Boxes	Spinning Room Cylinders
Conveyor Systems	Drying Cans

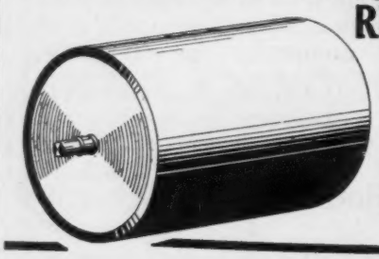
ALL WORK GUARANTEED
The only plant in the South equipped to rebuild Card Screens and Spinning Room Cylinders

IDEAL MACHINE CO.
Repair Headquarters for
STEEL ROLLS—SPINDLES—FLYERS
We make a specialty of
METALLIC DRAWING ROLLS
and also do
Overhauling, Moving and Erecting
BESSEMER CITY, N. C

PATENTS
PAUL B. EATON
Registered Patent Attorney, 218 Johnston Building
CHARLOTTE, NORTH CAROLINA
A former member of the Examining Corps
United States Patent Office
Also: 314 McLACHLEN BLDG., WASHINGTON, D. C.

FERGUSON GEAR CO.
CUT GEARS CHAIN DRIVES
BEVEL SPUR SPIRAL WORM SPROCKETS
RAWHIDE BAKELITE AND HARDENED STEEL PINIONS
Member American Gear Manufacturers Association
GASTONIA, NORTH CAROLINA

SAVE FREIGHT ON SQUEEZE ROLL RECOVERING



The close proximity of Carolina Rubber Company to textile plants of the South means a considerable saving on freight bills yearly.

Expert workmanship, quality rubber covering. Quick service. Write for quotations.

CAROLINA RUBBER CO.
SALISBURY, N.C.

BARKLEY MACHINE WORKS
MANUFACTURERS OF TEXTILE MACHINERY PARTS.
Cut Gears—Cast Tooth Gears
Parts for Kitson Pickers, Nasmith Combers, Whitin Combers. General Textile Repairs.
GASTONIA, NORTH CAROLINA

BRYANT ELECTRIC REPAIR CO., INC.
Successors to the Repair Department of Michael and Bivens, Inc.
GENERATORS, MOTORS AND TRANSFORMERS
REWOUND, REPAIRED AND REBUILT
New and Rebuilt Generators, Motors and Transformers For Sale
Oil Switches, Auto Starters and Compensators Repaired
EAST FRANKLIN AVENUE GASTONIA, N. C.
Telephones: Day 621; Night 1062M; 137

Dividends or Bust!

(*Continued from page* 1112.)

Another mighty good thing we should keep in mind is that *a real mill man will run his plant with what he has in the line of equipment.* He will make an every-day common lay-out become so flexible that changes in constructions or yarns will be quickly made without springing that old "gag" about lack of proper equipment. There are some surprising things being done that the lazy, ignorant or timid chap says are impossible.

Let us enthuse over our work. It makes no difference whether we are producing cheap osnaburgs or high class rayon voiles. Get onto the job. Let's make them a little bit better than anyone ever did before. Make them at a lower cost by getting a better production. If delivery is due in six weeks, let's get them out in four and land another order. Tell the men what we want, why we want it and when we want it. The more they know about the work—the better and faster they can get it out. It will build up their reputations as skillful managers. Tell them so. And we well know that our own reputations will go along with theirs.

We should use our heads. Use our eyes. Use our feet—and by this we mean, *walk* on them. If we anchor ourselves at our desks, we might as well regard it as certain that no matter how small or how easy the job may be, some other fellow under way, could make us look like Fulton's Clermont chasing the Bremen.

Keep after the little troubles. Don't let us get into the habit of letting things rip till there is serious trouble and then attempt to check up. Far better to continually check up and keep out of trouble.

If our superiors do not come along every few days and tell us what big fellows we are, we should not get the idea that we are not appreciated. We should keep right on plugging so as to feel that we are honestly earning more than we are being paid. Call it folly if you wish to, but it will surely keep our feet in the path that leads to success.

If we have surrounded ourselves with the right kind of men, we will find that if we step on the gas a little extra, we are not going to out-strip them because they won't let us. They will keep right up to us and perhaps may show us how to cut corners. Give them credit for everything they do, even if we did have a hand in helping things along.

Let our motto be: Dividends or Bust! It will be that, anyway. Dvidends and success go hand in hand regardless of all the arguments to the contrary. We ourselves are after all the money we can get; so are the stockholders. They might get theirs without us, but we cannot get ours without them. Then let's show them that we are the best men on earth. Can we? Will we do it? We can do it! We will do it!

You may be conscientiously doing all you can to boost your job—but unless you are using all your influence, all your tact, all your judgment, to get others to boost with you, you are not accomplishing much.

LAMBETH
spinning & twisting
TAPES

It's easy to prove the longer life and smoother running of Lambeth Spinning and Twister Tapes. Put them on and run them in comparison.

Important savings can be made by Lambeth Tapes. Try them. Get prices and samples.

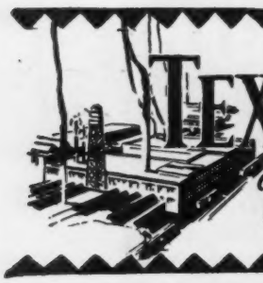
LAMBETH ROPE CORPORATION
CHARLOTTE · N · C

In Mill Floors You Want
CLEANLINESS
without
SLIPPERINESS

It is running a risk to leave floors slippery after cleaning. Costly accidents have happened that way. Carolina Cleanser has solved the problem of slippery floors, at the same time being a cleanser of unusual merit. This scientific preparation was compounded specifically for mill floors, but is also excellent as a general cleanser—for windows, walls, etc. Write for information.

THE CHAMPION FIBRE CO.
Canton, North Carolina

Carolina
CLEANSER
Also manufacturers of Sodium Hypochlorite. Liquid, Fused and Flake 76% Caustic Soda.



TEXTILE BOOKLETS *Worth Writing For!*

The booklets or catalogs briefly mentioned below may be obtained by any reader of COTTON who will write to the Company issuing them or to COTTON, Grant Bldg., Atlanta, Ga.

1. Cotton Picking, Carding and Spinning—Covered by three different catalogs. Picking catalog covers Opening and Picking Machinery; Card Room catalog covers Cards, Combers and Roving Frames; Yarn Machinery catalog covers Spinning, Twisting, Spooling, Quilling and Reeling. By Whitin Machine Works, Whitinsville, Mass.

2. Pepperell Equipment—10 page illustrated booklet, showing High Speed Warping from cones as adopted by Pepperell Manufacturing Company after thorough experiments. Installation and product photographs. Issued by Universal Winding Company, Boston, Mass.

4. New Methods of Opening Cotton, also "Brown" Automatic Mixing and Cleaning Distributor—Illustrated booklets showing advantages of Centrif-Air Cotton Cleaning System. Pamphlets also on better picking and carding and pneumatic trunk line cleaner. Issued by Centrif-Air Machine Company, Atlanta, Ga.

5. The Bahnson Master Control—Bulletin No. 301, 5 pages. Illustrated. Automatic device designed to control humidifying equipment so as to maintain a constant relative humidity. By The Bahnson Company, Winston-Salem, N. C.

6. "Cotton" Weather Vein, 32 pages; "Rayon" Weather Vein, 40 pages; house publication, illustrated. Bulletin 58, 80 pages, illustrated; Manufactured Weather—the automatic control of air conditions within buildings. Carrier Engineering Corporation, Newark, N. J.

9. The Johnson Friction Clutch—illustrated brochure and advertising reprints showing clutch installations of interest to textile field.—By Carlyle Johnson Machine Company, Manchester, Conn.

10. Leathers, Textile—Booklet No. 101, 48 pages. Illustrated. Showing BONDARON Check Straps—Lug Straps—Harness Straps—Pickers—Belting, both round and flat, etc. Horsepower tables and other interesting information. By Charles Bond Company, 617 Arch Street, Philadelphia, Pa.

11. Whitinsville Rings—16 page illustrated booklet. Describing ring manufacture, measurements, types, uses. How to determine flange sizes. By Whitinsville, Spinning Ring Co., Whitinsville, Mass.

12. The Pick Method of Weaver Wage Payment—Booklet, 20 pages. A practical manual giving full information and tables on this method of payment. By the Durant Manufacturing Company, Milwaukee, Wis.

13-A. Equipping Modern Textile Plants—Booklet, 35 pages, illustrated. Describes value of Monel Metal equipment in textile plants and presents reports from mill owners and operators on actual experiences; equipment, descriptions, etc. Also Dyed in the Truth—Reprints of advertisements of special interest to textile dyers. International Nickel Company, Inc., 67 Wall Street, New York, N. Y.

14. Emerson Conditioning Ovens—2 booklets on conditioning of textiles, or determination of the amount of moisture in textiles. Issued by Emerson Apparatus Co., Melrose Highlands, Mass.

15. Saving Labor, Material and Power in the Textile Industry—Bulletin No. 138. Illustrated. Controlling, Recording and Indicating Instruments in textile mills. Temperature, Pressure, Humidity, equipment layouts and descriptive applications. The Foxboro Company, Foxboro, Mass.

16. Tycos Instruments for the Textile Industry—Catalog, 84 pages, illustrated. Shows instruments for every application in the textile industry, specifications, prices, diagrams and installation data by Taylor Instrument Companies, Rochester, N. Y.

17. The Powers System of Thermostatic Control—"Slasher Room is Bottle-Neck of Textile Mill." 18 page illustrated booklet showing importance of proper treatment of cloth in slasher room and advantages of Thermostat over hand control. Also room temperature control illustrations. Issued by Powers Regulator Co., 2739 Greenview Ave., Chicago, Ill.

19. Quaker City Chemical Co.—48-page booklet containing useful information, tables, formulae, on dyeing, bleaching and finishing all textiles. Issued by above company, 2736 North Broad St., Philadelphia, Pa.

20. Bleaching, Dyeing, Finishing and Printing Textile Goods—70-page booklet containing interesting information on faults and methods in finishing goods, useful tables and definitions. By Bosson & Lane, Atlantic, Mass.

21. Warp Sizing and Composition of Cotton—Folder containing reprints of articles carried by textile publications of interest to progressive mill superintendents. By Seydel-Wooley Co., 748 Rice St., Atlanta, Ga.

22. Tragasol and Its Uses—Booklet, 60 pages, constituents and properties—Dissolving and preparation—sizing and dressing of yarns—cloth finishing—miscellaneous. By John P. Marston Co., 247 Atlantic Ave., Boston, Mass.

23. Practice of Rayon Sizing in American Mills, Raygomm, Lakeo Gum—Three booklets on products for sizing and finishing rayon and other textiles, presented by Stein Hall & Co., Inc., 285 Madison Ave., New York, N. Y.

24. Wyandotte in the Textile Mill—90-page booklet with information on bleaching, dyeing all textiles, including hosiery.—J. B. Ford Co., Wyandotte, Mich.

26. The Guide Post—18-page booklet showing porcelain guides, rollers, eyes used by textile mills.—By Page-Madden Co., 277 Ralph Ave., Brooklyn, N. Y.

27. The Seven Factors of Belting Economy—Booklet, 112 pages, illustrated, containing authoritative information on the economical layout, care and operation of belt drives. Chas. A. Schieren Company, 88 Ferry Street, New York, N. Y.

28. Constants and Calculations for Textile Mill Men—Memorandum book containing tables of constants and calculations as compiled by a prominent textile executive.—By Fisher Leather Belting Co., Inc., Philadelphia, Pa.

30. Lubrication of Textile Machinery—32 pages, illustrated. Data covering the economical lubrication of all textile machines. New York and New Jersey Lubricant Co., 292 Madison Ave., New York, N. Y.

31. Aluminum Paint—The Coat of Metal Protection—Booklet, 46 pages. Illustrated. The protecting and light reflecting qualities of Aluminum paint; its advantages to textile industry; where it is used; specifications. By Aluminum Company of America, 2400 Oliver Bldg., Pittsburgh, Pa.

32. Flooring, Open Steel, Area Gratings and Steps—Folder, 6 pages. Illustrated. For platforms, walks and stairs; non-slipping. By Kerlow Steel Flooring Company, Jersey City, N. J.

33. Cast Iron Columns—18-page booklet on use of cast iron columns in mill construction. By National Cast Iron Pipe Co., Birmingham, Ala.

35. Seating Equipment—Automatic, adjustable, ten inch height adjustment, all steel, mill and factory seating specialty, illustrated booklet, ten pages. Vitek Manufacturing Company, Omaha, Nebr.

36. Hosiery Inspection, Seamless and Full Fashioned—Illustrated folder. Also describes new Leg Examining Machine for full fashioned ladies' stockings. Edward R. Ammon, Reading, Pa.

38. Sleaziness in Full Fashioned Knitting—Illustrated survey with samples of fabrics showing causes of sleaziness, and methods to be employed in eliminating it.—By Textile Machine Works, Reading, Pa. (This company also issues parts catalog of Reading full fashioned machine with general information on subject of full fashioned knitting.)

39. Trend of Sales of Silk, Rayon and Cotton in the Piece Goods Departments; twenty-four-page booklet; prepared by DuPont Rayon Company in conjunction with National Retail Dry Goods Association. Copy furnished without charge by either of above. DuPont Rayon Co., 2 Park Ave., New York, N. Y

40. The New Competition in Color—20 page illustrated booklet. Discusses future trends in business and their significance, present trend toward fast colors in textile industry and opportunity this trend offers for increased profits if properly utilized. By Franklin Process Co., Providence, R. I.

41. Budget Control—40-page booklet showing how each part of business budget should be prepared and principles of its effective operation together with a summary of benefits.—By Ernst & Ernst, Accountants, 27 Cedar Street, New York, N. Y. (This company also has available booklets on Standard Costs, Business Control Through Analysis, The Better Wage, Factors to Consider in Working Out Mergers).

42. Factoring—Booklet, 11 pages. Summary of Factoring Service provided for Manufacturers of Textiles. By Textile Banking Company, 50 Union Square, New York, N. Y.

44. Points of Interest in and Around Atlanta—36 pages. Illustrated, describing places of scenic and historic interest in Atlanta in particular, and the Southeast in general. Atlanta Biltmore Hotel, West Peachtree, Fifth, Sixth & Cypress Sts., Atlanta, Ga.

Knitting Section

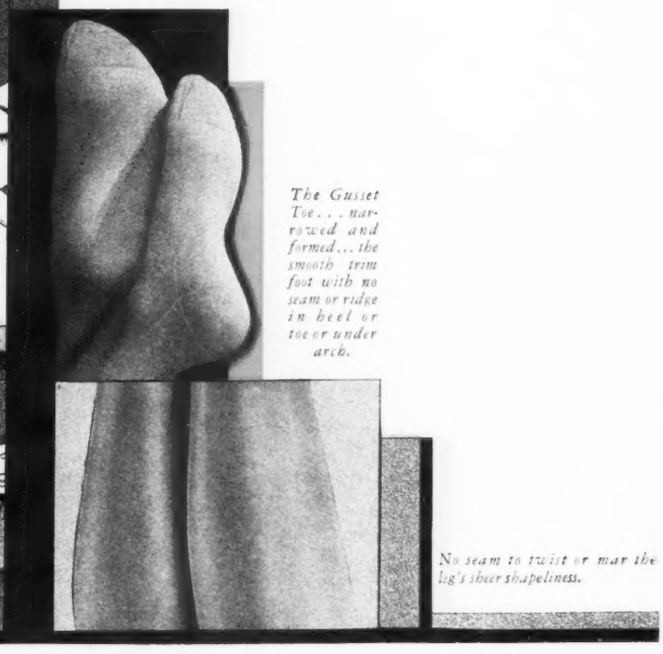
THESE new stockings without a seam . . . as flattering as they are smart . . . with nothing to mar the soft smooth sheer.

Elastic . . . never the tiniest wrinkle . . . fashioned in the knitting for trim ankle and graceful curve of leg. And such blissful comfort with no seam in the foot or fitted Gussetoe.

Knit . . . shaped . . . and finished complete on the new Model K machine.

Established 1865

SCOTT & WILLIAMS
Incorporated
366 Broadway,
New York, N.Y.



The Gusset Toe . . . narrowed and formed . . . the smooth trim foot with no seam or ridge in heel or toe or under arch.

No seam to twist or mar the leg's sheer shapeliness.

FASHION

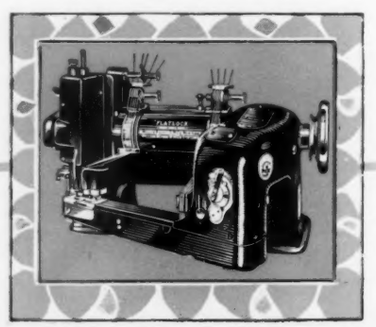
Fine Finish helped establish Fashion for RAYON Garments

THE exceeding great popularity of Rayon undergarments is traceable . . . secondary only to the appeal of these luxurious fabrics . . . to the quality of the finish.

Manufacturers recognize the important light in which women regard the seaming of underthings, so the Flatlock is in wide usage. This machine assures a seam not equalled for flatness, nor for beauty.

Wherever Rayon, Bemberg, Celanese or other synthetic fibres are used . . . seam with the Flatlock. The difference is notable . . . in the attractiveness of production, and in the extent of demand.

WILLCOX & GIBBS SEWING MACHINE CO.
658 Broadway, New York, N. Y., U. S. A.



WILLCOX & GIBBS

Write our Home Office for samples made on the Flatlock, or submit your own fabrics for sample purposes.

Sole United States and Canadian Agents for Cornely and Uniart Embroidery Machines.

Genuine W & G Needles are in a class by themselves.

Analysis *of* Production Figures Shows Interesting Information

Reports of a Large Number of Hosiery Manufacturers to the Department of Commerce Reveal Index to Operation in the Industry

ANALYSIS of the compilation of reports of 284 identical manufacturers of hosiery to the Department of Commerce for May this year and May, 1929, reveals an indicated heavy surplus production of most classes notwithstanding severe curtailment of output, forcing the conclusion that far larger stocks than ever had been contemplated were accumulated during months before the situation with reference to prices became acute and left manufacturers no alternative but to materially revise their production schedules.

As late as January there was little to disturb in the comparisons of statistics for the corresponding month of this year and last, except as to unfilled orders. Production and shipments went along pretty much this year as in 1929, according to the then current reports. Then a disturbing showing was made in stocks in mills at the end of the month. The latest report of the Department of Commerce available for the purposes of this analysis was for May. That month showed no really alarming conditions when comparison was made with April of this year, but when May, 1930, was contrasted with May, 1929, there was hardly a single item in the entire range of hosiery on the favorable side.

Comparative Figures.

The manufacturing establishments represented in the reports for May to the Department of Commerce are credited with having produced but 65.3 per cent of the total value of hosiery reported in the census in 1927, and 17 of the number reported no production during May this year. What per cent of the production in any one classification is represented in the monthly reports always is a matter of conjecture. But it may be assumed that the figures supply a fairly safe index of the status of the industry as between production and shipments.

The 361 mills represented by the 284 identical establishments reporting for May, 1929 and 1930, accounted for a production in May this year of 4,142,135 dozens, all classes, comparing with 5,420,373 dozens in the corresponding month of last year, a falling off of around 23 per cent. The favorable aspect of this showing is that curtailment of output went deeper than the decline in shipments for the month, which dropped approximately 20 per cent, while in orders booked during the month there was a falling back of 22 per cent. But, with a 23 per cent decline in output there was an increase of 9 per cent in stocks in mills, finished and in the gray, at the end of the month.

Manufacturers had 46 per cent fewer dozens of hosiery on order at the end of May this year than the aggregate of unfilled orders on the corresponding date of 1929. In unfilled orders there was a decline of 52 per cent in women's full-fashioned and 44 per cent in women's seamless. What may be surprising to some interests is, that while there was an increase of 36 per cent in mill stocks of women's full-fashioned, there was a decline in the stocks of women's seamless of 230,031 dozens, from 1,512,429 dozens. There is thus indicated a better balance between stocks and movement of seamless than full-fashioned.

Rayon Hosiery Production.

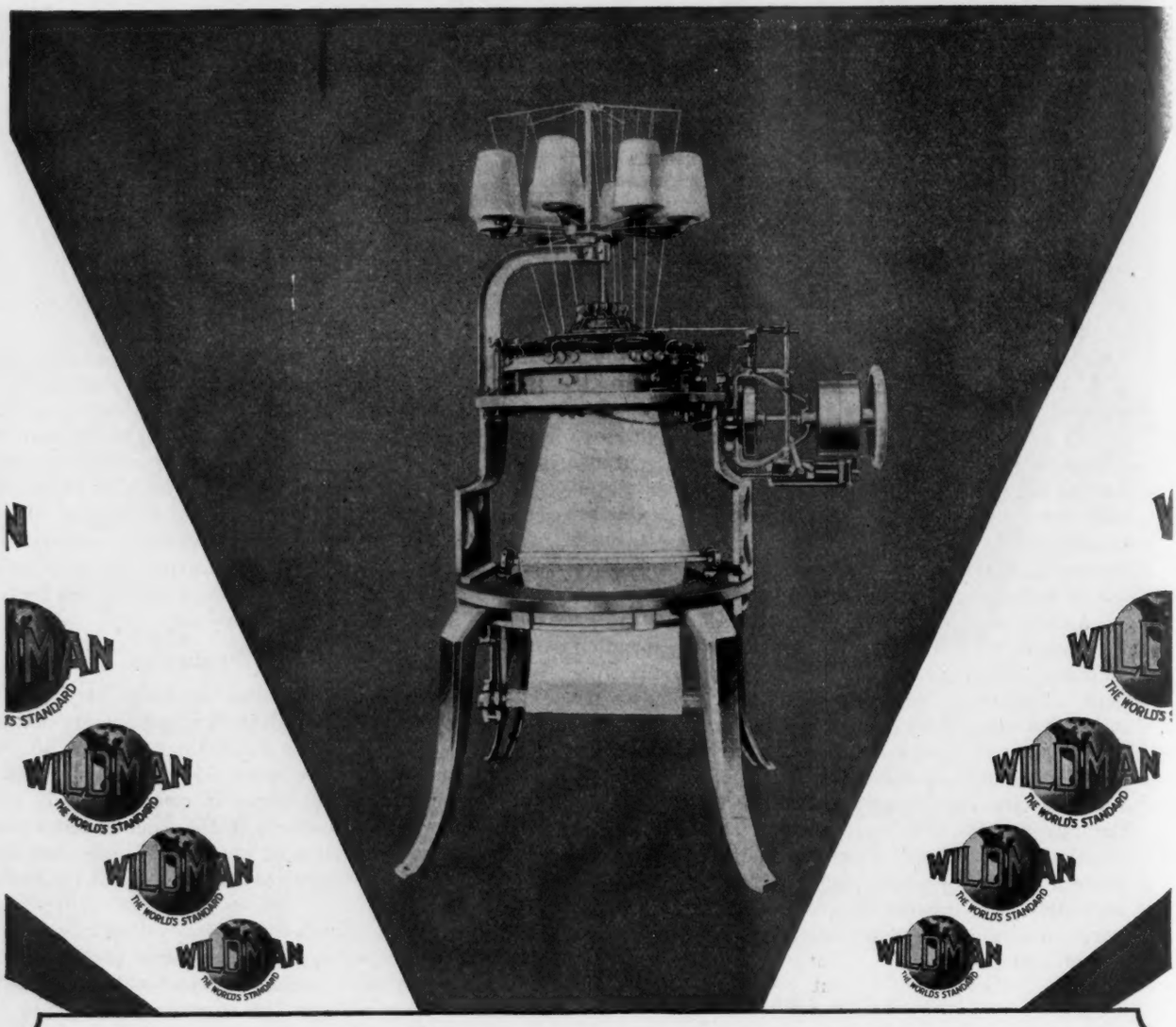
Rayon seems to have been especially hard hit in the adjustments under way in May, production declining as follows: Women's full-fashioned rayon 40 per cent, women's seamless rayon 35 per cent; women's full-fashioned silk and rayon in combination 77 per cent, and women's seamless in the same combination, 81 per cent. Production of women's silk hose declined 9 per cent for full-fashioned and 44 per cent for seamless.

Outstanding as an indicated innovation in women's full-fashioned stockings was a reported production of 12,261 dozens of rayon-cotton combination in May, compared with none in the corresponding month of last year. The first mention of the full-fashioned rayon-cotton combination in the reports of mills to the Department of Commerce appears in the table of statistics for June last year, when 1424 dozens were accounted for, comparing with 22,229 dozens of seamless, of which only 13,084 dozens were reported in May this year.

Men's Hose Production.

May production of men's seamless hose and shipments during the month declined by approximately 27 per cent each. Stocks in mills at the end of the month were slightly larger, but unfilled orders showed a decline of about 41 per cent.

In the boys', misses' and children's classification there was reported 25 per cent less production in May this year than in the same month of 1929. Net shipments declined 30 per cent and unfilled orders 45 per cent. There was a slight decrease in the stocks in mills at the end of the month. Infants' socks fell behind 50 per cent in unfilled orders, conditions in other respects comparing favorably with those of May, 1929. Athletic hose made a good showing as to mill stocks and orders, the latter running ahead by 40 per cent, while stocks declined 75 per cent. Unfilled orders were 60 per cent less than for May last year.



For quality Rayon, use the quality machine—Wildman

WILDMAN MANUFACTURING CO.
Norristown, Pa.

WILDMAN
THE WORLD'S STANDARD

WILDMAN
SPRING NEEDLE BODY MACHINE

AS WE'VE SAID BEFORE, one reason OLD KNITTER'S letters appeal to us is that they are just as applicable to people in other lines of work as they are to men in the knitting game. In this letter he gives some definite advice to SON as to taking a job that had been offered to him, at an increase in salary. Contrary to what the boy expected, OLD KNITTER advises him to stay where he is, even for less money at the moment.

You'll be interested in reading his reasons for this advice, and we believe that you must admit that there is a lot of logic in them.—
THE EDITOR.

DEAR DAD:

I have had a proposition under consideration for several days which I want you to help me decide.

I have an offer from Blank Mills at an increase in salary of 20 per cent. This is an old concern with a very large production, and I understand they want to inject some new blood into the organization with the hope of reviving the business and putting it back on a profitable basis. This appears to me to be a pretty big task, but for one who would succeed in the undertaking, it would be a very considerable accomplishment and would result in a very fine position.

I am tempted to take a chance with it. What do you think? Affectionately,

YOUR SON.

DEAR SON: ———

I have your communication with regard to your offer from Blank Mills. I happen to be thoroughly acquainted with the present conditions of this plant and my answer to your question is, No!

My reasons are very clear to me and I hope I may be able to make them clear to you.

I was talking with a real estate man today about a certain city. He made the remark that this city had no right to be a city, that it was purely an accident and there were not enough progressive young men among the descendants of those who had so greatly profited by the accident to carry it on. After thinking it over I find much truth in his statement. I believe that the same circumstances will apply in a large measure to Blank Mills. They were more or less an accident to begin with without any systematic planning or engineering, just an appropriation of some of the old man's cash to give the young man a job. This was back in the good old days when anyone with a little financial backing could go in the mill business and "mop up." Those days have gone forever, but, unfortunately, they left behind them methods, systems and customs that will require too much time and effort to correct. "It's hard to teach an old dog new tricks." I would rather risk my chances on the side of a mountain in a new plant with unskilled, teachable labor who had never been inside of a mill than to try to correct the defects and prejudices in the minds of the operatives at this plant.

Regardless of how efficient or progressive you may be, you can't always swim against the tide. Instead of your absorbing this organization, it is more likely to absorb you. When any mill management is not progressive enough to inject new ideas and new blood into its organization until it is on the rocks, it is bad judgment for one to assume the responsibility of being a Moses for it. One is judged largely by the reputation of the concern with which one is connected. There is no need for you, at this time, burdening yourself and risking your own reputation by becoming heir to the mistakes of others.

I understand that you are doing well on your present job, which you have built up for yourself, and you should be better qualified to carry on with your present job than any other job that might be offered to you. If you can continue to succeed as you have in the past, your chances for promotion with your present connection is much better than your proposed change.

I had rather take my check the first of each month from a little business that is progressing and making money, than a 20 per cent larger check from the biggest business in the world that is on the rocks and losing money.

Consciousness of success is the most stimulating influence in a young man's life.

After considering the proposition from these angles I trust you will see your way clear to pass it up.

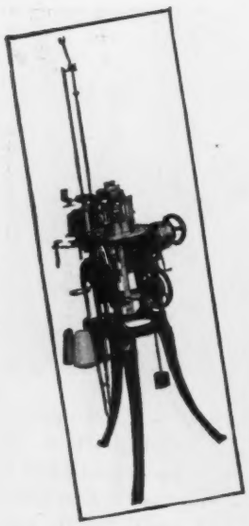
I am glad that you gave me this opportunity of expressing my views in this matter before reaching your decision.

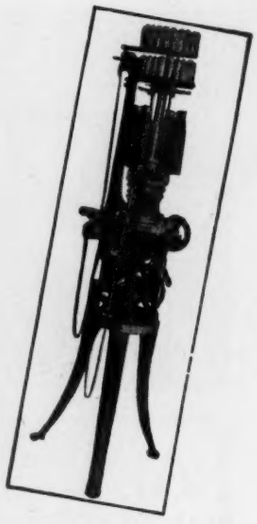
Sincerely,

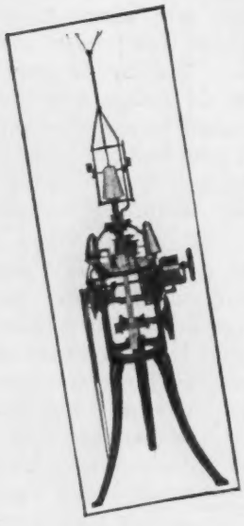
DAD.

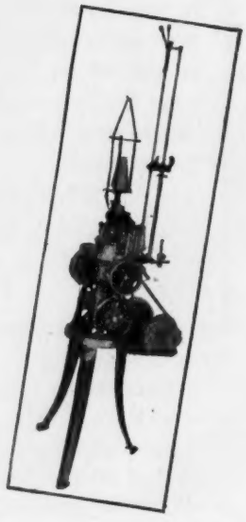
ALL TRUE-RIB

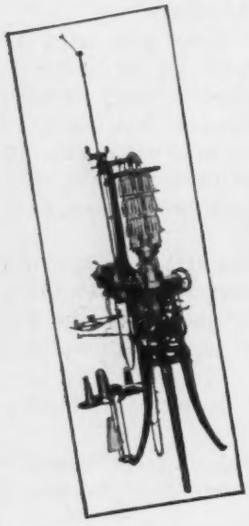
(Patented or patent pending)

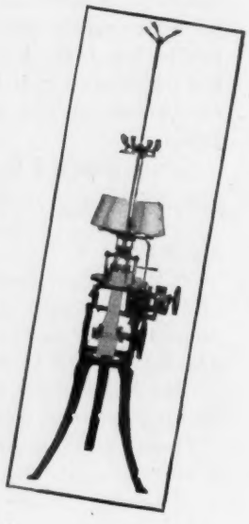


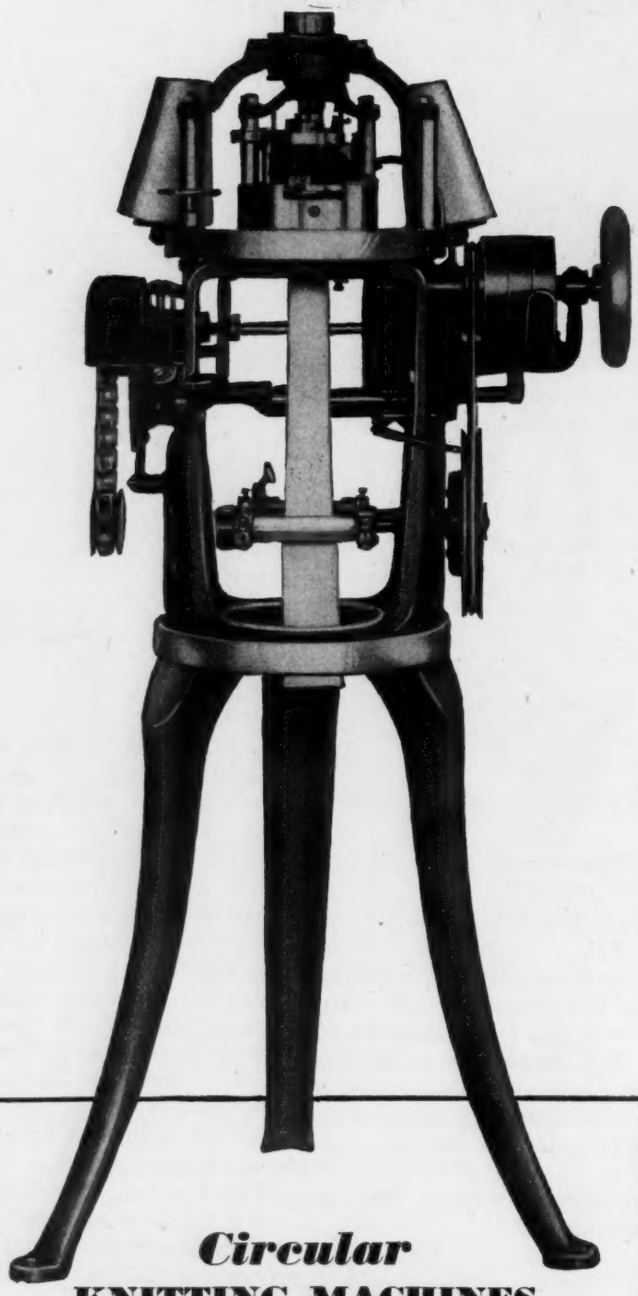












Circular

KNITTING MACHINES
BRAIDING MACHINES
CREASING MACHINES

FIDELITY MACHINE CO.
3908-18 Frankford Avenue
PHILADELPHIA, PA.

THE FIDELITY UNIVERSAL RIBBER

Backwinding Versus Direct Knitting.

EDITOR COTTON:

For the past two or three years there has been much time and thought and quite a lot of money spent on various equipment to eliminate back winding on gum silk for full-fashioned knitting.

Every now and then some fellow rises up to claim that he has the problem solved, but after a few weeks you hear that he ran into some trouble and abandoned his project.

There is a lot of high priced second-hand equipment which was designed for direct knitting and discarded by the users, available today at extremely low prices. I know of one manufacturer who sold some perfectly good winders at a sacrifice second-hand price, and after a few months bought more winders at the new factory price. I heard of another man just the other day who had converted a very expensive conditioning room into a drying room for drying legs.

While some progress has been made in that direction, a fully satisfactory solution to the problem has not been reached. In the past few months I have tried several of the substitutes for backwinding, but am frank to admit that none of them are as satisfactory. I have tried open wind on metal cones dipped in water, open wind conditioned in conditioning room, hygroscopic silk in conditioning room, silk conditioned and shipped in sealed packages ready for knitting and regular wound silk conditioned for 48 hours in a unit conditioner.

The best results I have obtained from any of my experiments is back winding and conditioning after back winding, but I find the hazard in this method offsets the apparent advantages. For example, if the silk is left for too long in the conditioning room, or if the humidity is too great, or if the silk is wound too hard or if the gums are inclined to be soft, there is a tendency of the silk to stick and cause uneven tension in knitting. So, after all my experience, I have finally reached the conclusion that the one method that will meet all conditions and circumstances and give uniform year-round satisfactory results is the old fashioned back winding method, and I am further persuaded that if the same time, thought and attention were given to the winders in perfecting them that is given to trying to find a substitute for them, much better results could be accomplished.

We invite our readers to make use of this department for the discussion of any and all problems arising in connection with the knitting mill from the office to the packing and shipping departments. Questions, answers or letters need not conform to any particular style and will be properly edited before publishing. All questions will be answered as promptly as possible. The names and addresses of the contributors must be given, but will be held in confidence and a pen name substituted when printed. All accepted contributions other than questions will be paid for after publication. The editors do not hold themselves responsible for any statements of opinion or fact which may appear in this department unless so endorsed. This department is open to all.

Much care should be given to the selection of the back winding oils, the density of the solution and the speed of the moistening roll.

Expert attention should be given daily to the porcelain guides, the lay of the wind and the tensions. The heart of a winder is the tension. Too much tension on a wet silk will cause lots of trouble, while not enough is just about as bad. A tight tension in winding will cause the silk to stick in coming off the cone and make irregular lines or courses and short stockings, while too loosely wound will deliver too freely, causing sleazy knitting, crepiness and long stockings.

Silk stretched too much in the winding will produce a dead inelastic fabric in the finished product. For the foregoing reasons, it is very important that the throwster wind his cones with uniform tension, for no matter how evenly the tensions may be adjusted on the back winder, the original cone will reproduce its kind on the back winder. That is to say, a hard cone will back wind a hard cone, and a soft wind with a soft cone. This reproduction will carry on to the knitting machine, a hard cone producing a short stocking and a soft cone a long stocking. Therefore, there should be much pressure brought to bear on the throwster to deliver uniform tension wound cones.

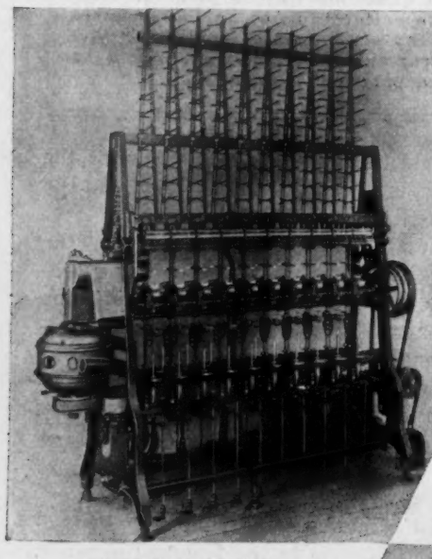
Some inventor has an opportunity to invent an instrument for accurately measuring and registering the tension on a moving thread.

So much for winding problems. I will turn again to conditioning problems.

I have found it impossible to thoroughly and uniformly wet out silk on any kind of cone of any kind of wind in a conditioning room without heat to drive

ATWOOD MACHINES for GRENADINE TWISTS

ATWOOD DOUBLE-DECK TWISTER



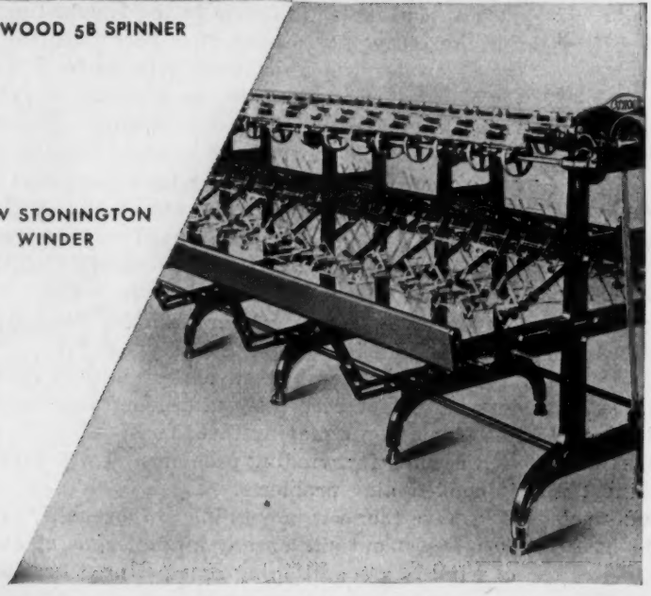
ATWOOD 5B SPINNER

Producers of Grenadine yarn will find in the Atwood line, machines ideal for their uses. They represent the developments of over 60 years' experience in making the machines which throw the bulk of the world's silk. Today Atwood machines are the recognized standard for silk and rayon.

Atwood Single and Double Deck Twisters are noted for their sturdy construction, low power consumption, uniform spindle speed and economy of floor space.

The world famous 5B Spinner, a combined doubling and spinning frame, is the standard for all doubled yarns.

The new STONINGTON Winder incorporates oil-less bearings, unit assemblies, silent gears and many other advanced engineering features.



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in the moisture. You can find dry spots in a cone of silk sitting in a rain storm from a humidifier spraying cold water after 48 hours. Then if heat is necessary it naturally follows that it should be automatically and uniformly controlled heat. To maintain a relative constant humidity it is necessary to have the proper amount of water, and the only way to accomplish this is to have a self-contained automatic air conditioning unit.

These units are manufactured by two or more reputable concerns and are giving some very fine results where used.

The best conditioned silk I have run was our regular silk right from the case regular wound on paper cones with no special chemical treatment conditioned in one of these units for 48 hours.

I think anyone building a conditioning room without automatic control is wasting time and money.

With the right kind of conditioning equipment and with a uniform supply of raw silk and with lots of experimenting to find the proper humidity and the correct time for conditioning, it is possible to get very good results, but after all is said and done, I am like the old lady who inspected the baby incubator at the World's Fair. She said: "It might be all right, but I like the old way the best."

CONTRIBUTOR NO. 4723.

Preventing Lint in Sinker Ring.

EDITOR COTTON:

I notice the question from "CONTRIBUTOR NO. 4619," who said, "We have always had considerable trouble with our Scott & Williams Model K machine clogging up with lint around the groove of the inside sinker ring, causing of course, streaked work. This trouble is more prevalent on our mercerized and cotton styles, due of course to the lint which comes off of the yarn as the stitches are being formed. Our present method of taking care of this trouble is to clean out the cylinders at certain intervals when they become bad."

This man asks readers to submit different methods of preventing this trouble. In our case, this trouble, causing streaked and bad work, was completely eliminated in our mill by the installation of an air compressor carrying 40 pounds pressure, and a system of blowing out the machines completely as often as twice or three times weekly if cotton yarn is used, or as often as is necessary for the different kinds of yarn bearing more or less lint.

I will not describe our equipment, as it is large enough to take care of 8,000 spinning spindles and 800 knitting machines, possibly being too large in this case.

Caution must be used not to raise the pressure so high as to disarrange the latches on the needles, as that is very easily done, and oiling is necessary immediately after this cleaning, as water is conveyed through this compressed air, causing rust in case oil is not used.

CONTRIBUTOR NO. 4803.

BONE-DRY UNSHRINKABLE WELL-FINISHED

HARD MAPLE HOSIERY BOARDS

Give you that much desired finish that cannot be obtained from any other than wooden boards.

You get the length, lustre, *feel* that the goods should have.

Our special finish is highly recommended for silk and wooden boards.

We serve the best mills—send a request for list and same will be forthcoming.

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Perfect results on hosiery, yarns, woven and knitted fabrics.

MANUFACTURERS OF TEXTILE CHEMICALS

Keeping Check on Needles.

Some thoughts on conserving needles and saving money that will interest all types of knitters; since they all use needles.

EDITOR COTTON:

"A needle in the hand is worth a nickel in the pocket." If those who handle needles in the mill would keep this little saying in mind as they handle the needles, what a saving in needle consumption their company would realize. And this is just what all companies are striving for.

"CONTRIBUTOR No. 4618" recently stated in "KNITTING KINKS that their needle bill is one of their most important cost items, and that they do not feel that their system of keeping check of the needles as they are being used is good enough to keep an accurate check on the number used. As he does not give the system he is using, I will give my system and hope that it may prove of some value to him.

DAILY NEEDLE REPORT

MACHINIST	MON	TUE	WED	THU	FRI	SAT	TOTAL
Jim	50			50			100
Bob			50				50
Joe	50						50
Bill		50				100	150
Clay	100						100
Frank	50				20		70
TOTAL	250	50	50	50	20	100	520

Fig. 1.

As long as there are knitting machines there will always be a need for needles. The manufacturer, however, is not in accord with the idea of using more needles, for he realizes that the fewer needles used, the less will be the cost of his product. Therefore, it is up to him to keep the usage of needles as low as possible. To do this he must check his system from the time the needles are requisitioned from the store room to the time they are thrown on the junk heap as being unfit for further use.

The knitting machines themselves cannot knit without needles. The mechanical condition of these machines and the care the needles receive during the knitting process is to the writer the most important item to be checked and should be done first.

Are my machines in good mechanical condition so that a minimum amount of smash-ups occur from unavoidable causes? Do I have needle protection on every machine to prevent smash-ups? If I already have these needle protectors are they really kept in adjustment so that they will work when they are supposed to work? Is the head machinist, who has charge of the mechanical condition of my machines, in earnest as to the seriousness of these questions, and is he really trying to get results? Am I trying to run my machines at a faster speed than that recommended by the builders of the machines? Are the needles I am now buying made by a reputable needle manufacturer? Do my operators know the cost of needles and do they really try to take the proper care of the needles they use? All of these questions have a direct bearing upon the needle bill, and if a knitter will only ask himself these questions he will have taken a great step in the reducing of needle consumption.

As our mill consists of about 300 seamless knitters, we must use an elaborate check on needles used. Experience has taught us that if no check is made everyone concerned becomes careless and disregards the value of needles.

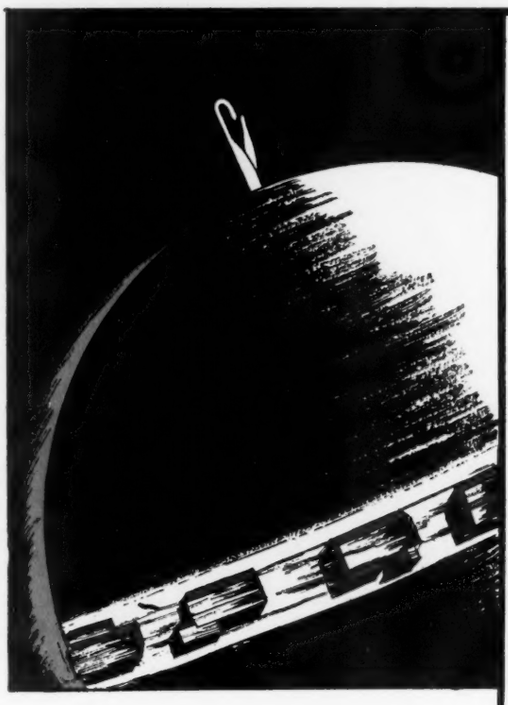
Our machinists, first of all, are trained to know

WEEKLY REPORT

NAME	JAN				FEB				MAR				APR				MAY				JUN			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Bob	50																							
Jim	(100)																							
Joe	50																							
Bill	(150)																							
Clay	(100)																							
Frank	70																							
TOTAL	520																							

Fig. 2.

THE SUN NEVER SETS ON TORRINGTON NEEDLES



The red box with the green label.

THE NEEDLE preferences of knitting mills which circle the globe give force to the phrase . . . "The Sun Never Sets on Torrington Needles." These far flung mills buy Torringtons because desired fine knitting results are thereby secured.

That is a safe criterion. Needles play such an important role in the scheme of production that only needles which have proved themselves competent should be put into your machines.

Every feature which a truly excellent needle should possess is present in Torringtons. Scientifically designed . . . properly constructed . . . uniform, well tempered, and smoothly finished . . . Torrington Latch Needles will add measurably to the quality of your knitting.

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Chandler & Co., Boston
T. D. Whitney & Co., Boston
Stewart & Co., Baltimore
Davison-Paxon Co., Atlanta, Ga.
Cromer-Cassels, Miami, Fla.
Mary Cummings, Inc., Louisville
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Gives you national acceptance of fast color quality wherever your fabrics are shown.

So rapid has been the acceptance of the Franklin Process Fast Color Identification Plan that 5,000 and more buyers now know this Label as the way to identify fast colors on sight.

This enthusiastic acceptance is largely due to distribution of the Franklin Process Color Directory to stores like those listed in the panel at the left. The comments indicate the value attached to this forward merchandising aid:

Says Joseph Horne & Co., *Pittsburgh:*

"After these directories are distributed our buyers should not be able to give convincing alibis that it is impossible to buy fast-color materials."

Says Rich & Co., *Saginaw, Mich.:*

"We find the Portfolio and directory a masterly contribution toward pushing fast colors to the front. Our buyers speak in the highest terms."

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"We appreciate the Portfolio (directory) giving us a list of manufacturers using the Franklin Process Colored yarns. It will be of great value to us."

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"This will acknowledge receipt of the Franklin Process Directory... this will be very useful and helpful to our division head and a source of greater information along the line of your products."

These comments give but a partial insight into the demand for fast colors and the selling advantage enjoyed by those now using the Franklin Process Color Label. Let us send you full information and explain how this plan may be used on your fabrics. This plan may prove the solution to the problem of gaining new outlets for your fast color lines. Address, using the coupon.

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Please send me full particulars regarding the use of the Franklin Process Fast Color Identification Label on

_____
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Title _____

Firm _____

Address _____ Ad. 348

the difference between a good needle and a bad one; that is, when one should be discarded and when one should not be discarded. We have a very diligent foreman who follows this up and sees to it that the machinists follow out his instructions. We have found this to be a good policy because by persistent effort on the part of the foreman the men eventually fall in line and realize the importance of low needle costs. Do not get the impression that we try to get a machinist to use a bad needle. No, far from it, we only try to prevent perfectly good needles being thrown away.

Our regular needle stock is kept in a fire proof storeroom. These needles are requisitioned out by the foreman of each department as he needs them. Each foreman keeps a minimum supply on hand to meet his requirements—his requirements, of course, depend upon the size of his department and the number of changes necessary to make to his machines. The foreman requisitions his supply to his machinists as they need them, fifty needles each time. Each machinist has on his work bench a needle box which contains space for each type needle that he uses, also space for the needles which he has replaced with new ones. We require each machinist during his spare time to sort over all of his used needles, but not to destroy any of which he has any doubt. These needles of which the machinists have doubt are collected at various times and gone over by the head machinist for a final inspection.

We do not allow any needles to accumulate on the machines or on the floor anywhere. We find that this policy further educates the workers to what we are trying to attain—low needle costs.

As new needles are requisitioned out to the machinist we keep account of them on a report, as shown in Fig. 1. At the end of each week each machinist's needle requirements are totaled, thus we are enabled to point out the one using the most needles, as well as why he is using so many needles. We let our machinists know what their respective totals are, which is shown by a chart as shown by Fig. 2. This promotes a sort of rivalry and generally produces results.

CONTRIBUTOR NO. 4756.

Keeping the Cylinder Down.

EDITOR COTTON:

I have read with interest the inquiry of "CONTRIBUTOR NO. 4620" with reference to keeping the cylinder down on Model K machines. He said that his machines are all equipped with the stitch graduating attachment, which of course is to gradually tighten the stitch from the boot to the ankle. He continued, "Our trouble is with our cylinder not dropping down to the proper level at each graduating kick. This causes our lengths to vary considerably. In order to overcome this trouble, we have done several things that have helped, but it seems there must be another method that would prove more practical. The set-screw on the cylinder tube arm which is just above the sinker ring cap is set down as closely as possible without having the top stick when making the reciprocating motion. We have a large screen door spring fastened to the cylinder tube to also pull down the cylinder. The insides of our cylinders are kept lubricated, so that there would not be any possible chance of their getting dry."

This contributor asked for any other suggestions which would help in keeping the cylinder down.

He stresses the point that he keeps his machines oiled well inside the cylinder around the sleeve. In my experience, this is not the most essential point in causing a cylinder to fall. Fixers sometimes believe that friction on the needles causes the stitch cam to pull the cylinders down as the needles go down, disregarding the fact that the needles come back up, the left rising cam upon being released by the stitch cam causing a balance at this point; entirely overlooking the jack cam which forces half the needles up, and if this cam is very steep it causes friction on the jacks which are released at the top of the jack cam and allowed to fall back into the circle without any friction down, thus giving the cylinder a tendency to float after being released by the graduating attachment.

I have found that slightly more slope on the lower jack cam, having the jack walls clean and well oiled with a moderate amount of friction on the needles, and keeping the needles well oiled, are the most essential things in securing a free falling of the cylinder in this case.

CONTRIBUTOR NO. 4804.

Setting Sinker Cams.

EDITOR COTTON:

I would like to discuss a question you recently published from "CONTRIBUTOR NO. 4621," who wanted various readers to give their methods of instructing beginners as to how the sinker cams on Scott & Williams machines should be set.

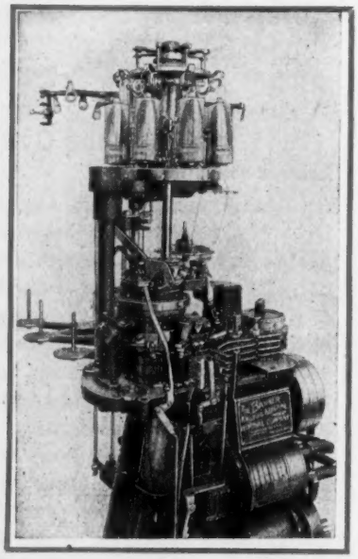
I have never found a definite answer to this question that would be universally applicable, but I will give him my ideas on the subject. There is a system laid down by the machine manufacturers, but this is only a basis of adjustments to work from, as the manufacturer will tell you. It applies not to all machines. The rule, as quoted by "CONTRIBUTOR NO. 4621," is as follows: "Set the sinker cam so that the back of the needle comes even with the throat of the sinker as the needle rises."

This could be made a universal rule, but before this could be done, stitch cams, sinker cams, and rising cams would have to be milled to precision, which is not done. They are allowed to vary three to five or sometimes eight thousandths of an inch, and they are not mounted to precision, but by jigs that are allowed to vary in the same proportion, never giving the same medium to work from. Either one of the variations will cause a change in the adjustment of the bumper screw. As a solution for this, I have tried to teach learners as the fabric desired, and how to make it so, not trying to teach them how to make a fabric they have never seen, as that is beyond my own experience.

CONTRIBUTOR NO. 4805.

THE LEADER OF THE YEAR IN HOSIERY POPULARITY

BUYERS everywhere assert, "Wrap Stripe is essential to an up-to-date '31 line." Made on the Banner Full Automatic Wrap Stripe Machine — eight color feeds knitting raised effect of hand embroidery—eight steps for diversified patterning—two color attachment for color change in vertical stripes or designs—high splice and double sole for sales to thrifty buyers—regular yarn changes and binder—can be equipped with horizontal striper. Naturally, the product of such a versatile machine is the sales sensation of the year.



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Preventing Drop Stitches on H-H Machines.

A compilation of opinions as to the various things that will cause the difficulties mentioned on these machines. Can you add any ideas to those here given?

EDITOR COTTON:

The questions of "CONTRIBUTOR NO. 4731," state that his H-H machines are making drop stitches in the welt, it appearing as if the latch opener doesn't work. He also said these machines are also dropping a stitch off on the jack needles in the transfer.

I assume from the description he gave that the drop stitches occur at the end of the welt rather than at the beginning. This eliminates the question of the latch opener, and as he says the drop stitches occur on both long and short butt needles, I can only conclude that it is due either to lack of tension on the rib yarn, or to having the rib yarn fed too close to the left-hand corner of the throat plate.

I would suggest that "CONTRIBUTOR NO. 4731" have the rib yarn in the finger nearest the right-hand corner of the throat plate if it is not already there, and use a little tension on this yarn.

I believe that this is also the cause of drop-stitching on the Jack needles in the transfer. Drop stitches on the low butt dial needles in the welt sometimes occur when the push-out cam, shown in the accompanying illustration, Fig. 1, is inserted against the low butt needles to push out the high butts. If the edge

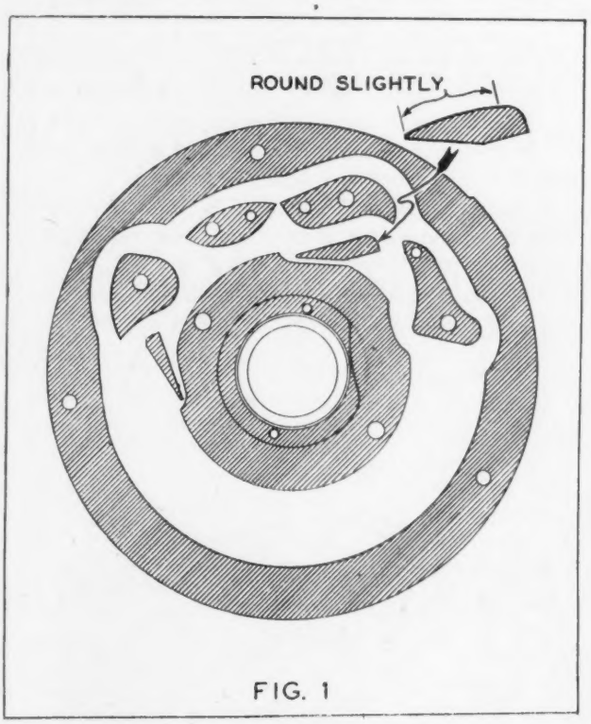

FIG. 1

of this cam is sharp, it will sometimes push out a low butt dial needle, causing it to drop its stitch, but this could not happen in the high butts.

I would suggest that "CONTRIBUTOR NO. 4731" be certain that he is using the right-hand finger for the rib yarn, and put on a little tension.

CONTRIBUTOR NO. 4744.

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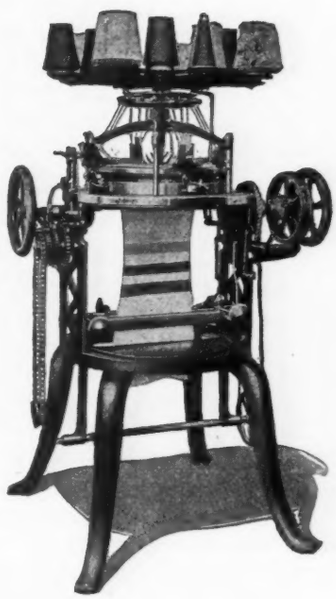
MACHINES



Rib and Sinker Top Machines for Plain and Fancy effects.

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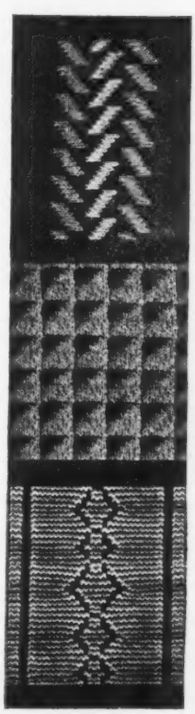

assure the success of your merchandise by making them on Brinton's. They will perform up to your expectations if Brinton's knit them.

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H. BRINTON COMPANY
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Philadelphia, Pa.

EDITOR COTTON:

This replies to the questions of "CONTRIBUTOR NO. 4731", who stated that he was having difficulty making drop stitches in the welt, on H H machines, it seeming as if the latch opener doesn't work. He also said that these machines are dropping a stitch off of the jack needles in the transfer.

To remedy these difficulties, I would make the following suggestions: Set the throat plate as close as possible and keep a slight tension on the yarn. A properly adjusted latch opener will not give any trouble. The dropping off of stitches on the jacks in the transfer is caused by various things, namely by the transfer jack drawing too long stitches, or bent needles in the cylinder, or the dial not being properly lined up with the cylinder needles.

CONTRIBUTOR NO. 4743.

EDITOR COTTON:

We note the problems of "CONTRIBUTOR NO. 4731" who said that he is having difficulty making drop stitches in the welt on H H machines, he describes this difficulty as being on a 176-needle machine, being a small hole just between the welt and the rib. There are several things that would make such a hole. First, if the rib knitting cam is held against the short butt dial needle hard enough to drive out one of the needles, or if the welt yarn is run to the machine without any tension. Another possible cause of this would be the rib knitting cam drawing the dial hooks in too fast, or if the latch opener on the machine does not get between so that it opens the latches positively.

From his description of the stitches being dropped from the jack needle where the welt is hemmed, and starts the rib, I would assume that the rib knitting cam is set in to draw too long a stitch.

CONTRIBUTOR NO. 4751.

Among the Knitting Mills

CADET HOSIERY CO., INC., Columbia, Tenn., recently announced that they had installed 25 additional full-fashioned machines. These will be put in operation at the earliest possible date.

The United Hosiery Mills Corp., Chattanooga, Tenn., adopted a plan of recapitalization at a recent meeting of the directors of the United Hosiery Mills Corp.

J. E. Sirrine & Co., engineers, Greenville, S. C., recently reported that they would be ready to release plans for contractors in a few days for the new $1,000,000 hosiery mill to be build by the Knit Goods Corporation of America, in Corinth, Miss.

It has been reported that J. W. Landenberger & Co., Philadelphia, Pa., manufacturers of hosiery, have broken ground for their new mill building, which will be located at Castor St. & Kensington Ave. The 50,000 sq. ft. of additional floor space which this addition will give them will more than double their present capacity.

Consolidating the advertising department, the sales department and the auditing department of the Westcott Hosiery Mills, Dalton, Ga., with their corresponding departments of its associate concern, the Real Silk Hosiery Mills of Indianapolis, necessitated a number of changes in the office personnel at the Dalton branch. The manufacturing departments, however, will not be affected by the change.

Larkwood Hosiery Co., Charlotte, N. C., is continually adding equipment as business justifies. They will continue doing so until the capacity of the new building is reached.

Northwood Hosiery Co., Philadelphia, Pa., manufacturers of full-fashioned hosiery, has acquired a branch plant in Greensboro, N. C. It is reported that the company may eventually move its plant to Greensboro, but that for the present both plants would be operated.

Wilkes Hosiery Mills Co., North Wilkesboro, N. C., were recently reported erecting an addition to their dyeing department, which will double the capacity of this department. Foster and Allen are the contractors.

After a lay-off of several months, Bismarck Hosiery Mills, Inc., Carthage, N. C., are to resume operations. New machinery will be added which will enable the mill to make a finished product ready for the trade. It is expected to be running to full capacity around the latter part of July or first part of August.

It has been reported that Morris Ellis, of Philadelphia, is planning on establishing a full-fashioned hosiery mill in Charlotte, N. C.

It has been announced that May Hosiery Mills, Inc., Burlington, N. C., are installing a number of full-fashioned machines.

A History of Hosiery Inspection

By Edward R. Ammon

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PART NINE

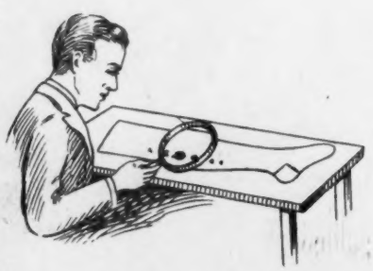
THIS is the ninth of a series of articles by Edward R. Ammon. The first article appeared in the August, 1929 number, the second in the September issue, the third in the November 1929 issue, the fourth in January 1930, the Fifth in February 1930, the sixth in March 1930, the seventh in April 1930 and the eighth in May 1930. Subsequent installments will appear in later issues.—The Editor.

WE WILL FIRST take a ladies full-fashioned stocking, and show how each stitch of each part of the stocking is stretched so that every possible hiding place of a defect is exposed.

In all cases the fabric is stretched in four different directions which causes the defects to become plain and to be exposed very prominently.

Another important item in successful inspecting is examining the stockings when they are turned inside out.

First, all trimming should be done as a separate operation. This can be successfully done by learners who will trim successfully while waiting to be advanced to better jobs. Entirely satisfactory trimming is done by the seamer tying the string around the middle of the dozen and the trimming done from the outside without untying the dozen. The stockings are then inside out the same as when they left the seamer. This is very important, as when inspected with the right side out, chain ends are liable to be pushed into looping and seaming corners and make the defects harder to see.



Seen Through a Glass.

How Well Does It Wear?

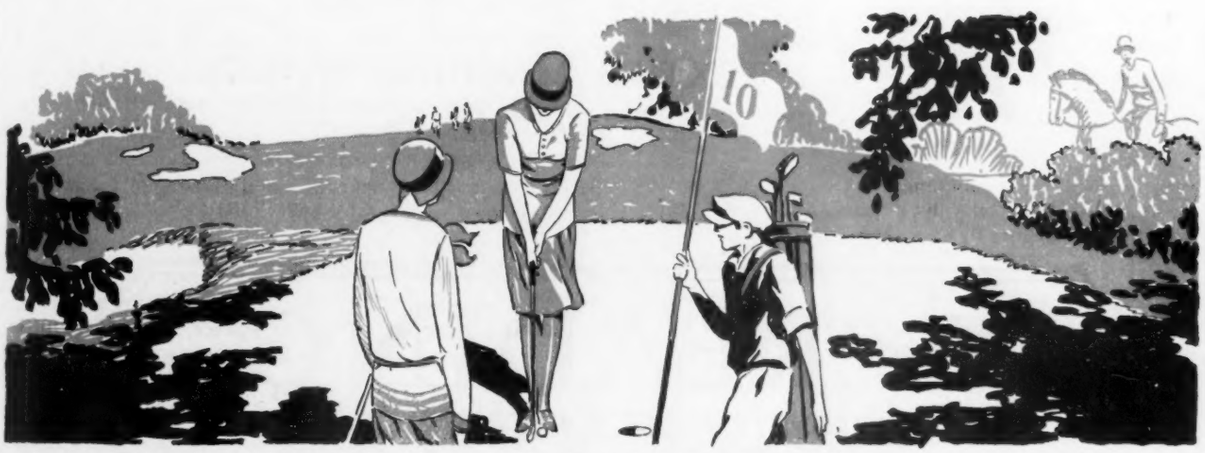
THAT'S what modern shoppers are asking your dealers. They test your merchandise in a hundred washings—on the golf course—wherever they go; and if it stands up they come back for more. If not—they ask for another brand.

Dixie durene is good "repeat business" insurance. It adds beauty, wearability and comfort to your merchandise. In addition, Dixie durene is practical in the mill because of its remarkable freedom from knots and slubs.

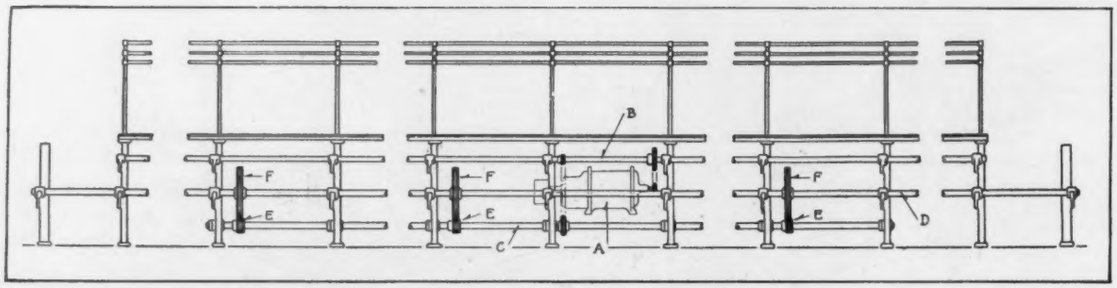
Write us about your yarn requirements. Your letter will receive instant attention.

DIXIE MERCERIZING COMPANY

CHATTANOOGA, TENNESSEE



A TYPICAL READING IMPROVEMENT



The above diagram shows the three-point gearing arrangement of the new Reading Central Drive. A = motor; B = handwheel shaft; C = torsion-taking driveshaft; D = cam shaft; E and F = pinion gears from intermediate shaft to cam shaft.

The Reading Three-Point Drive

A patented feature designed to distribute the driving force so as to offset torsional strains and the vibrations that accompany such strains in high-speed machines.

An *intermediate shaft* with three driving connections to short, rigid sections of the main shaft produces identical cam action in every section of the machine.

The resulting efficiencies of this new design are apparent--*no inherent vibration, better fabric, less attention or repairs, longer life.*

TEXTILE MACHINE WORKS
Reading, Pa.

The **"READING"**
Full-Fashioned Knitting Machine

Defects in looping corners are also harder to open up when the stocking is inspected with right side out. This is caused by the pressure of the fabric causing the cut or missed stitches to bind when on the inside, by being pressed tightly against the form.

It requires much more stretching to make them let go, than if the stocking were inside out and the loose ends not pressed against anything.

Weighing the question from all sides, defects are more surely found, and there are less unmended defects missed by the inspector if the stockings are examined with the inside out.

Probably the most dreaded defect the full-fashioned manufacturer fears is the improper fastening of the narrowing stitches in the calf of the leg.

In a larger number of cases, the narrowing stitches look all right and even with considerable pulling they fail to show any weakness.

When the gum is boiled out of the silk thread and its diameter reduced, the pinching effect of the stitches, surrounding the uncaught narrowing stitches, is greatly reduced and then the blind narrowing stitch, as it is usually termed, slips away from the retaining stitches and turns into a runner.

If the uncaught stitches can be detected in the inspecting process, and mended before the gum is boiled out of the silk, the stocking can usually be used for a first.

The further the stocking travels before the stitch lets go, the more disastrous the consequence. Frequently it becomes a runner when the hose is drawn on the steam forms. When mended at this stage it is greatly reduced in value. Many times it holds until the consumer wears the stocking, and after wearing possibly a few minutes, she discovers a runner in the back of her stocking that she cannot account for.

Today the consumer is fast learning that the stockings contained a hidden defect when she bought them, and she is returning them for replacement more and more.

Of course, this is very expensive to the manufacturer and irritating all along the line.

With a newer type of expanding inspecting machinery, a foot pedal is arranged to expand projections which are the body of inspecting form when the stocking is drawn on.

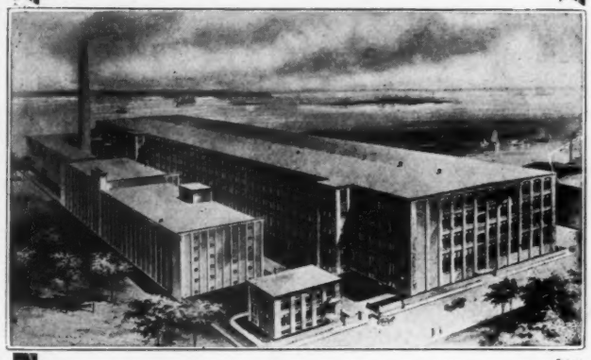
Extra stretching is necessary to expose defects in some parts of the stocking. The projections are arranged to expand at these places.

After the stocking is in position, a slight pressure is put on the foot pedal. This is greatly multiplied. With a scarcely noticeable effort, the operator exerts sufficient expansion of the fabric to detect any irregular stitches, without them breaking out to cause runners.

This is accomplished because the expanding of the stitches has the same effect, as though they are seen through a magnifying glass. This causes the defects to appear much more plainly.

In addition having the calf narrowing stitches all expanded, and held flat at the same time, a very rapid glance is sufficient to determine whether any blind narrowing stitches exist in the stocking.

Quissett Mill
New Bedford, Mass.



THE PICK OF THE CROP

Because Quissett Yarns are primarily quality products, no trouble is spared in selecting the highest grades of cotton obtainable. The best of Egyptian, Sea Island, Arizona, and Peeler cottons, Peruvian, Brazilian and Quintex cottons, are among those used for Quissett Yarns.

But the pick of the world's long staple cotton crop is only the FIRST step of Quissett in producing the highest quality yarn.

Quissett also has the pick of operatives, the best of machinery and climatic conditions known to yarn manufacture.

QUISSETT MEANS QUALITY

Wm. M. Butler, Pres.
Edward H. Cook, Treas. Thomas F. Glennon, Agent

The KNIT GOODS MARKETS

DEVELOPMENTS in the primary markets for hosiery during July are regarded as leaving the situation with regards to stocks, style and price more confusing than at any time since manufacturers entered upon a period of wholesale curtailment in recognition of the then signs of approaching demoralization. A month or two ago it was thought by some factors the markets had passed the crucial test. By mid-summer it appeared as if the crisis had not been reached, and some of the large retailers, as part of a movement for hammering already sacrificially low prices, were letting it be indicated they were reducing stocks in anticipation of still more ruinous rates for fall goods.

Against the more disturbing incidents in the market situation were trustworthy reports of improving demand for certain types of women's silk full-fashioned goods and mills in some instances finding it justifiable to increase production. This was true especially of a few which were featuring dull luster stockings. For example, a manufacturer in the Philadelphia area was operating the plant to capacity and selling production at profitable prices, because, he stated, "We are knitting only dull hose, and getting more than $14 a dozen for it. If we were knitting tram silk with the sheen we would have to suffer a loss, for we could not compete with many of the mills we know of that are making stockings with the luster."

The mill was making money not only because knitting the dull. It has a reputation in the trade that enables it to put hosiery into distribution profitably when those less skilled in the art of marketing are either losing or simply swapping dollars. One small establishment knitting tram silk hose had been quite well occupied, but several months ago eliminated profit by reducing its price one dollar a dozen. About the middle of July the plant was closed indefinitely, after men and management had failed in an undertaking to bring about a peaceful downward revision of wages. About the same time another of the eastern Pennsylvania mills discontinued producing for a time, and in a general way there is evidence of mills reducing work-time schedules. Coincidentally, however, mills which had been idle or partly so were going forward. For example, the Quaker Hosiery Co., idle for several weeks, resumed production on a conservative basis, and the H. C. Aberle Co. added more operatives to its force of a month before. There have been isolated cases pointing in opposite directions to a market trend, leaving even the better informed little less enlightened than before studying these indices.

Buyers taking the bear side of the market point to the low prices obtained at the auction sale of Krueger-Tobin Co. stocks as an indication of weakness. This cannot be said to be a true interpretation, for it was high price hosiery, much of it of foreign origin, that was offered. Clocked French lisle hosiery, sold wholesale ordinarily for $30 a dozen, was knocked down to small buyers for $6.75 a dozen; wool half-hose, a dollar a pair in good retail shops, passed over the auction block for $4.50 a dozen, and others, sold out of season, brought around one fourth of their market values. This meant there was no demand for the high priced goods which might be detected on the counter as having figured in a distress sale.

Regular goods from favored American mills are and have been fetching higher prices than were realized at the Krueger-Tobin auction, it is pointed out. Previous models of heel construction of full-fashioned silk are taken eagerly in some of the department stores at 85 cents a pair, costing the stores around $6 a dozen. They are bought by an element of the shopping public that is attracted more by an indicated 15 cents markdown than by French or pointed heels. Thus, it appears, there is an outlet for popular price silk hosiery of American origin while imported classics may be not interesting to buyers for the trade.

Controversy over the patent of the Westcott Hosiery Mills, Dalton, Ga., covering the manufacture of grenadine hosiery, necessarily is placing the southern full-fashioned group of mills more nearly in the center of the picture of the industry, besides giving the company's product the strongest possible advertising, say northern mill interests and the distributing trade. And the fact the validity of the patent is to be aired in a court of record in a suit of the company against two of the more prominent manufacturers alleged to be infringing, is regarded as certain to still further advance grenadine interests and, perhaps, detract from crepe hosiery for the time.

A few weeks ago a person speaking for the buying department of John Wanamaker's, Philadelphia, thought the trade still was at sea over dull hosiery. Later he was quoted as expressing the opinion both crepe and grenadine were gaining in popularity, and one of the leading wholesale distributors since has added it to the concern's lines. In May, according to the large retail stores, there was little inquiry for the dull and it had to be pushed to be sold. Now, these same factors state, numbers of shoppers ask for it. This confirms or is confirmed by the demand upon manufacturers for the stocking made suddenly famous by the Westcott company, which as suddenly became the most spoken of hosiery manufacturer North and South.

Suit Entered by Westcott Charging Infringement on Grenadine Patents

SO MUCH PUBLICITY has been given to grenadine that, it is the opinion of some mill chiefs, it may be necessary to take steps for preventing the sale of chemically dulled silk hosiery except it be given a distinguishing mark in order to avert, as far as possible, the practice of deception by manufacturers and dis-

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"Fleurs Phantomes"... on chiffon ... roses of orange with half tone ground in grey and white.

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"Wimbledon"... for crepe or chiffon ... taupe, rose and white plaid on seafoam ground.

"Ça y est"... brown, orange and white flowers with deep rose twists ... light rose georgette ground.

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Piece Dyeing—Weighting—Finishing—Moire—Hosiery—Roller and Screen Printing—Rayon and Celanese—Ribbons—Skein Silk—Knitted Fabrics—Mixed Goods.

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Paterson, N. J.

General Offices: East Paterson, N. J. *New York Salesroom:* 152 Madison Ave. *Works:* Paterson, N.J., East Paterson, N.J., Allentown, Penn., Williamsport, Penn. *Canadian Branches:* Dominion Silk Dyeing and Finishing Company, Limited; Dominion Silk Printing, Limited, Drummondville, P. Q., Canada.

Reg. Trade Mark

PRINTING

tributors whose code of ethics is conveniently flexible. at prices that would permit their sale in retail stores for a dollar a pair. This is said to be the first definite blow aimed at grenadine hosiery. It is felt in the trade that the outcome of the suit of the Westcott company for infringement will either seal the doom of grenadine hosiery or make it one of the stronger items in women's lines.

Not since the filing of suit after suit against one manufacturer and another for alleged infringement of the patent owned by the Gotham Silk Hosiery Co. covering the pointed heel in full-fashioned hosiery has there been a parallel to the grenadine controversy, the immediate effect of which is to prolong market confusion. For this reason, it is thought, both parties to the action will be eager for expeditious determination of the question whether the Westcott company controls by patent the manufacture of grenadine hosiery.

It is conceded in an increasing element of the trade that one dollar a pair represents, by all odds, the present popular price for hosiery, and by many, the manufacturers having good orders on 39- and 42-gauge machines are looked upon as fortunate. As grenadine is expected to command from 50 to almost 100 per dip dyed, and at least one specialty shop, the management states, is closing out all of its stock of ingrains and will not replace them. This would seem to augur well for the better grades of dull hosiery.

Among the several leading manufacturers selling direct to retailers who quite recently announced bringing out dollar stockings "to fit into the retailer popular price scheme," as the managements say, is Weber, asked whether its sales may not be restricted by dollar stockings of high standard, even though knitted of tram silk and carrying the sheen that was the envy of those who felt they could not afford the luxury of ingrain silk. Now, according to apparently trustworthy information, demand for ingrain has materially abated. One manufacturer in New England is reported having discontinued ingrain and concentrating on Friedrich & Weil, Inc., Philadelphia. Two one dollar numbers, both with French heels, made their appearance last month. One is a service weight with picot top, and lisle welt and feet. The other is a chiffon. silk from toe to top, not picoted. The company also has introduced a fine gauge dull stocking to retail for $1.95. It is dip dyed and is regarded an innovation in featuring strongly pointed and two-point heels. About its price bracket. Until June, 1929, the company was first attention given to staples. The management states that one result of this change was a 100 per cent more at the retail counter, the question often is that time the fancies were made a secondary item and cent increase in last month's business, comparing with July of last year.

Berger Chain of Hosiery Shops To Try Store-Owned Mill

FOR MAINTAINING standards and the dollar price and taking advantage of opportunity for keeping abreast with style changes, the Berger Emerald-Toe Hosiery Stores, Inc., will have a mill under its direct district of Philadelphia for a factory to be known as Already full fashioned stockings are offered to dealers control. Ground has been broken in the Kensington Berger Hosiery Mills, Inc. It is to be completed and in operation by January, 1931, it is stated by the senior member of the Berger firm, and equipped with Reading machines. The company has not decided how many shall be installed, the number depending on conditions in the hosiery trades by the time the building is ready for the installation.

The Berger company operates a chain of ten or more exclusively hosiery shops in the Chestnut and Market street shopping sections of Philadelphia. The first store was established a little more than ten years ago. Until last year the chain's one price was $1.15 a pair. It is now one dollar. The company has been taking a large part of the output of the Co-Ed Silk Hosiery Mills, Philadelphia. All of its hosiery is sold under its brand Emerald-Toe. Sub-standards are sold only in arcade shops and small stores not in the big shopping lane, and are priced 65 cents a pair. The fact the Berger company will engage in manufacturing is viewed as a straw pointing toward chain-owned mills. The Dexdale company, Lansdale, Pa., had an unprofitable experience with mill-owned stores and abandoned stores in New York and Philadelphia, and is expanding the business of the mill.

The Berger Co. might have bought either of a half dozen small mills equipped with machines only a few years old. It preferred new machines combining every modern device for producing novelties, the object in owning a mill being however, a working down to minimum cost. A mill supplying distributors calling for stockings at lower cost is reported knitting one end of rayon with four ends of silk in a line of chiffons intended to be sold for 85 cents a pair in retail stores.

A Bemberg Stocking for $2.50 a Pair.

While some interests are working down in prices for silk hosiery, Bemberg interests are aiming at better Bemberg stockings at higher prices. A few weeks ago, semi-chiffon Bemberg stockings were given their first showing in the same Philadelphia store which several years ago introduced Bemberg service weight, selling then for a dollar a pair, now regularly 85 cents. The semi-chiffon, dull finish, Bemberg to top, is a dollar stocking. The same store now is introducing a $2.50 Bemberg chiffon. It is a German made stocking and bears a close resemblance to fine-gauge French stockings.

Situation Favorable to Jobbers.

The "reorganization" of the hosiery primary markets, so far as pertains to prices, is said by some important distributors to make popular price goods available to jobbers at rates under which they can re-establish themselves in favor with retailers. They feel that now they can operate in average good grades of silk stockings profitably to themselves and the retail trade, supplying the latter with dollar hosiery at a trifle over $8 a dozen. This, it is pointed out, gives manufacturcreased distribution.

ers a broader outlet and should be a factor in in-

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MILLS

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ABERFOYLE MANUFACTURING COMPANY

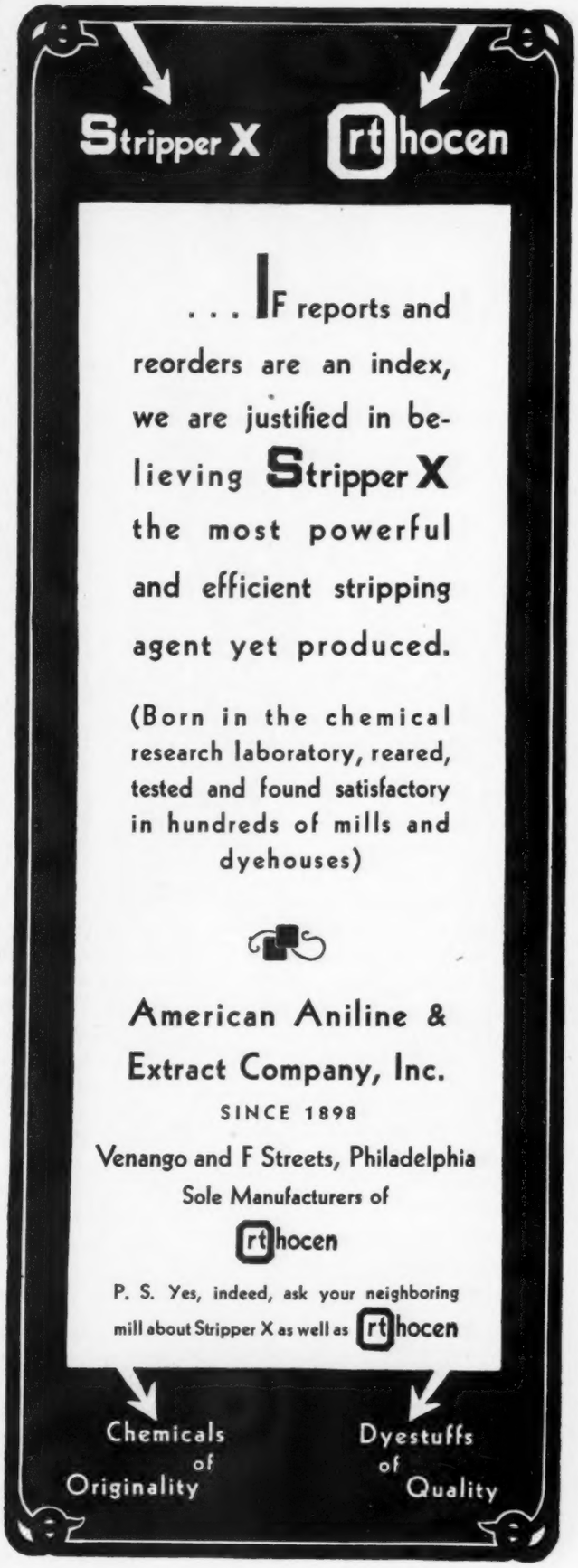
Representatives in All the Principal Countries of the World

But that which jobbers view as furthering their interest as distributors of hosiery is not relished by mills selling their nationally advertised brands direct to retailers. One in this group, rated among the better known and more strongly entrenched, recently scrapped a number of its 39-gauge machines, to prevent their falling into the hands of mills selling to jobbers. The concern still is using 42-gauge equipment but, it is stated, aims to eventually produce nothing coarser than 45-gauge, in which, it appears, the price decline has been sharper than in either 39- or 42-gauge, as indicated in recent offerings of 45 to large retailers for less than $9.75 a dozen, for sheer, picot top. In fact, buyers for department stores say there is but little margin between quotations for 45- and 48-gauge of like number of strands of silk.

Some of the manufacturers and their customers who last year, yielding to an "efficiency engineer's" suggestion that hosiery be described by the gauge in which it is knitted, stamped the gauge on the stockings and guaranteed it, are no longer selling gauge, having found in an oversupplied market that it was not what shoppers were looking for, judging from the selections of buyers for the trade. The buyers still specify gauge when they are negotiating, but do not stress it to their customers, for one reason, in the sharp competition buyers prefer that they tell as little as possible to those in similar positions in competing establishments. It is told that it is easier to get a crowd around a bargain counter when the attraction is dollar 42-gauge of honest construction than when 45- is being exploited at 15 to 25 cents more, for first quality goods. So, buyers reason, what's the use of telling rivals or shoppers something that does not interest them?

Although little is heard concerning feather fashioned stockings, the construction in which the fashion marks at the ankle narrowing are knitted into the selvage, it is understood the Nebel mill in Hatboro and a mill in Cheltenham, also in the Philadelphia environment, have produced a type of construction in which the danger of runs at that particular point is practically eliminated. Dana Carmer is the active principal in the Cheltenham mill. It was Mr. Carmer who built and sold the Endurance mill, in Philadelphia. This is a mill of Mock, Judson Voehringer Co., Greensboro, N. C. It is operated as the Northwood Hosiery Co., and the machinery is being removed to Greensboro, marking another migration in the Philadelphia full-fashioned hosiery industry. Which serves to revive interest in a proposed survey for ascertaining why numbers of textile mills have abandoned their plants in that city and seek sites elsewhere. In this connection it can be stated on authority that certain southern interests are making a quiet drive for the acquisition of full-fashioned hosiery mills whose owners would be not averse to moving out.

A Texas manufacturer a few weeks ago was dickering for the purchase of Philadelphia made hosiery, of 42-gauge, at a price which would enable it to sell to retailers for $8.25 a dozen. Another southern concern was looking for a Philadelphia mill presumed to have cumbersome holdings of full-fashioned of even coarser gauge. It was said large buyers in the south-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BACK COME THE COTTONS

How new methods of production and merchandising have re-awakened interest in styled cottons . . . . . .

25 years ago women used cotton almost exclusively for daily wear. They wore cotton chiefly because it was sturdy and inexpensive. And yet we must confess, as we look back, that the fashions were not a little charming and attractive.

A quarter century has passed. Cotton has had its ups and downs in public favor. But today King Cotton reigns anew. Countless thousands of women have rallied back to cotton. Hundreds of manufacturers, dressmakers, coutouriers and department stores are designing and selling cottons, fashion's favorite.

Benefits for Manufacturer and Consumer

This widespread revival finds its origin largely in the fact that manufacturers have concentrated on styling their cottons. Along with this they are introducing new methods of production and merchandising. They are advertising their cottons. They are identifying their cottons by placing their name or trademark directly on the cloth.

Manufacturers who initiated a trademarking policy only one or two years ago are already benefiting. They find that women are asking for their fabrics *by name*. Thus substitution is prevented, advertising is made more effective, steady all-year-round demand encouraged, good-will created. The picture is just as bright from the consumer's point of view. Accustomed to buying almost everything else by brand, she depends on the trademark on cottons as a guide to quality, dependability and price-protection.

How Kaumagraph Helps

Kaumagraph's contribution to cotton prosperity concerns itself with trademarking and identification. Many of the foremost cotton goods houses not only in this country but throughout the world, have counselled with Kaumagraph regarding their trademark requirements.

Kaumagraph Dry Transfers provide the means for economical, practical and beautiful trademarking. Their application to fabrics is simplified by special mechanical appliances which have been worked out by Kaumagraph. Often it is possible to combine the process of trademarking with another operation such as measuring, rolling, winding, etc., so that it does not increase the handling expense. It is not unusual for Kaumagraph to design special machinery for special trademarking requirements.

Kaumagraph's services are available to manufacturers small or large. If you have a trademarking or identification problem we will be glad to sit down and discuss it with you . . . . without any obligation on your part.

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ern field feel the larger surplus stocks are to be found in the northern centers of trade; that mills in the South were thought to have curtailed output more sharply.

The manufacture of silk full-fashioned hosiery is pretty much a go-as-you-please game, with numbers of manufacturers operating plants overtime while complaining of excess production and inadequate prices. A manufacturer in the Reading area, unlike most of them in that section, has been running the mill day and night, according to the managing executive, this being one of a very few to operate on such a schedule. "We are selling all we produce," he said, "but prices are not satisfactory." The product is popular price hosiery.

The chief ailment of the hosiery trades is that "merchants are not anticipating," said a manufacturer commenting on sales. "Some of the big stores," he continued, "are buying no fall goods, while disposing of stocks which they have carried from last year. I am speaking more particularly of general lines of textiles. While pushing left-overs of fall goods, the stores are not doing justice to summer items, in some lines. As to hosiery, instead of sacrificing old styles, the stores have mark-down sales of recent creations, selling new styles at near what they ought to be getting for old ones. They are not anticipating, and this is reflected, of course, in the yarn and silk markets."

Men's and Children's Hose Make Fair-to-Good Showing

MILLS rated as representing conditions in the markets for men's wool mix half-hose report a sharp decline in production, comparing with a year ago. Less advance business has been placed, it is stated, and some of the orders, notably as to certain market centers, are regarded as not liable to be revised downward when shipping instructions come through. Thus far jobbers are unusually slow with detailing, this accounting for a slowing down by manufacturers, as it is aimed to have no stocks of this class of hosiery when the season for retailing sets in, leaving it to dealers to either anticipate or lose sales as a penalty for passing the buck.

Mills generally are said to be anticipating dealer requirements for men's fancy half-hose in the popular price brackets, for fall, and standard lines of silk and cotton in combination are viewed as promising of a fair volume of distribution. The high price lines are said to be feeling the effect of the policy of economy in the consuming trade as appraised by retailers in their orders to mills. Not so many months ago, mill agents professed as much enthusiasm over silk-rayon half-hose as the rayon-cotton combination. The latter now is regarded as having moved to the front in point of sales volume, while the former is being taken by distributors so cautiously that some mills have reduced their output more than 50 per cent. This showing is in line with that for men's full-fashioned silk socks, while seamless, of 12-thread, of standard construction, going to jobbers at around $4 a dozen, seem to be holding their own.

The more important manufacturers of children's

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HIGH SPEED TRIMMING AND OVERSEAMING, OVEREDGING AND SHELL STITCH MACHINES FOR USE ON KNITTED AND WOVEN FABRICS OF ALL KINDS

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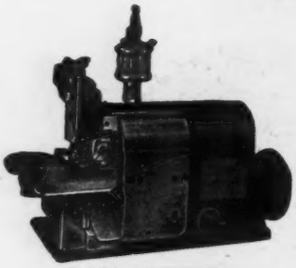

CLASS 60 MACHINE

INQUIRE ABOUT NEW MERROW MACHINES

STYLES 60-ABB and 60-D3B

For simultaneously trimming and joining ends of cotton, silk or woolen piece goods with a

FLAT BUTTED SEAM

Permits goods to pass through finishing machines, uninterrupted, for such operations as Shearing, Calendering, Mercerizing, Bleaching, Dyeing and Printing—with *remarkable saving*—both in labor and fabric.

Butted Seam, natural size, made by STYLE 60 ABB MACHINE on Cotton Goods which have been subsequently processed. The STYLE 60 D3B makes a similar though much wider seam designed for use on sleazy or loosely woven goods to insure holding.

OTHER RECENT DEVELOPMENTS—FOR THE RAYON TRADE

STYLE 60 RD —For a three-thread overedge finish, either straight or scalloped, on Rayon Bedspreads and other sleazy articles on which the ordinary edge finish will not hold.

STYLE 60 JDC—For two-thread **FLAT SEAMING** on Rayon Underwear.

Let Us Demonstrate the Work of These and Other Machines on Your Own Fabric.

THE MERROW MACHINE COMPANY

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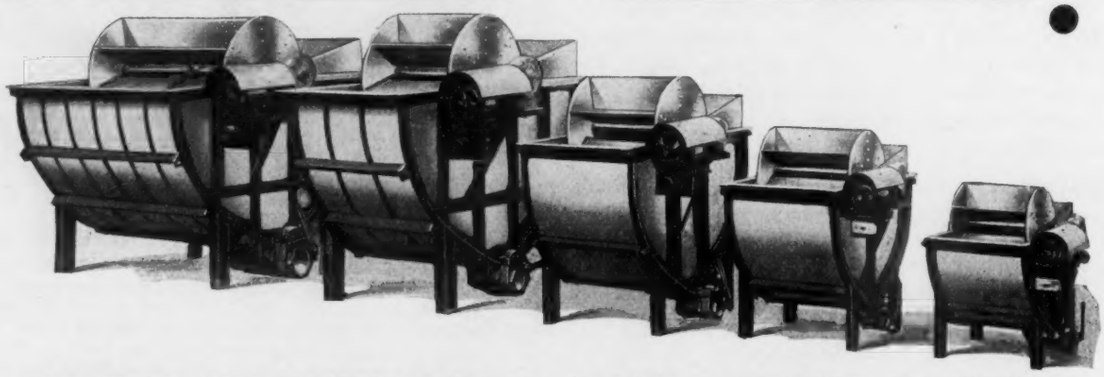


STRICKLAND MONEL METAL PADDLE DYEING MACHINE,

Motor or Belt Driven, in a Sturdy Cast Iron Frame

Hosiery dyers will welcome the corrosion resisting cast iron frames, mono-cast side frames and cast iron angle end frames.

These frames are made extra heavy and rigid to reduce vibration. Motor, belt or chain drive at your option. Capacities 5, 10, 25, 50 and 100 lb. sizes. Other sizes built to order.

Write today for price and delivery.

STRICKLAND PATTERN WORKS
Chattanooga, Tennessee

hose and infants' socks having opened their lines last month for the next season, the trade is looking for a showing during August as to the extent buyers are likely to anticipate. In children's lines, offerings represent a refinement in designs, comparing with last year; attractions in the way of pattern, and revisions of prices that ought to prove attractive and effect an early start in the buying. In fact, it is stated some substantial business in certain lines of children's stockings in five-eighths lengths has been booked by several mills. Again is there seen a further drift to brevity, the five-eighths apparently superseding seven-eighths in no little extent.

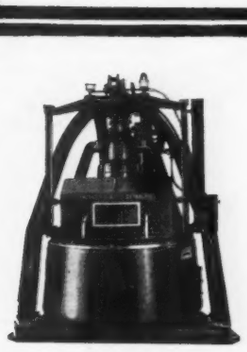
The opening is regarded having had an auspicious start, with less liability to price cutting than in the weeks following the 1929 opening. It is not being overlooked by manufacturers that prices of silk, rayon and mercerized yarn may play a more important part in the prices of a few months hence than now is contemplated. It was made apparent soon after the opening that numbers of buyers purposed making no commitments until after the August 8 cotton crop estimate and condition report was made public. Mills are said to have ignored the probability of any material recessions in yarns.

From the standpoint of placing advance orders, children's hose, including infants' socks, represents less of the speculative than either men's or women's, according to the conclusions of some market observers. In the sock group there re-appears the question of buyers' expectations as to anklets. The prevailing opinion seems to favor a larger proportion of anklets than during the last fiscal year. But, as pointed out, the primary question is not one of socks or anklets, but orders, with specifications to be filed reasonably early.

Hosiery interests speculating on the results from curtailment of production of all classes so far as it has been carried seem disposed to feel there still is more than ample production, considering the stocks which are thought to have been in mill hands at the start of the slump, which, it might be said, began or was indicated in November-December, 1929, when shortly before the holiday buying was assumed to get into full swing there were rumors of price cuts. Notwithstanding the rumblings, which became louder in the early months of 1930, as late as March, mills making women's full-fashioned were maintaining about the stage of production indicated a year before.

Underwear Jobbers Slow to Supply Shipping Instructions for Heavyweights

NOT ONLY are underwear jobbers withholding orders for men's heavy weight cotton ribbed underwear, some are calling for rebates from the prices at which they made early contracts for their first fall deliveries. There have been cancellations of some fair size contracts because manufacturers refused to yield to the demands for excessive cuts from the original prices, and it is stated one or two buyers for chain stores have been parties to repudiation of orders. Even where it was believed contracts protected sellers against declines for designated periods, buyers, it is stated, manage to wriggle out by not giving shipping



He can't get near it until it stops!

YOUR extractor-man can't reach into the revolving basket of the Humatic Hydro Extractor until it comes to a dead stop. THEN, AND NOT UNTIL THEN, DOES THE SAFETY DOOR RISE—AUTOMATICALLY.

Besides such safety features, the Humatic has many other advantages—such as automatic timing—automatic stopping—uniform extracting. Write for details.

The American Laundry Machinery Co.
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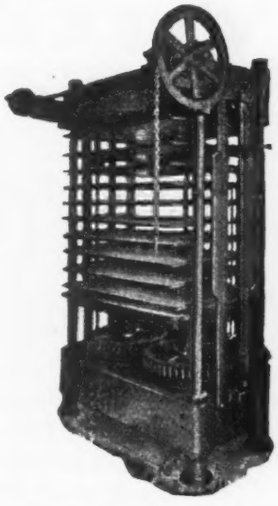
47-93 Sterling Road, Toronto 3, Ont., Canada

For every dye-house need . . . a *specialized* machine.



RELIANCE
Hot Plate Screw Press
FOR
Hosiery and Underwear
Write for Catalog and Prices
Reliance Machine Works
FRANKFORD, PHILA.

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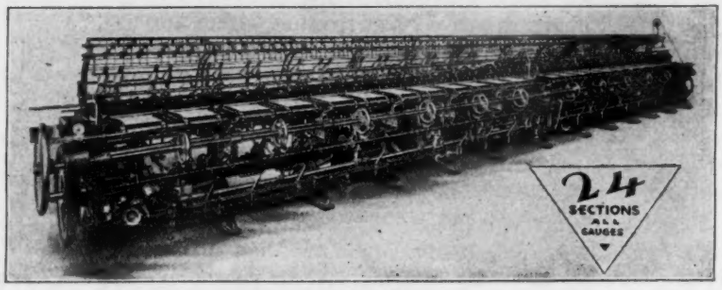

FULL FASHIONED HOSIERY MACHINES

HIGH SPEED — 65 COURSES PER MINUTE

CREATION!

In every field of manufacturing, you will find one manufacturer who stands out as a leader - - a pioneer - - in introducing new refinements of design which result in greater efficiency and greater production. In the field of Full Fashioned Hosiery Machines, this unmistakeably points to Schubert & Salzer.

Therefore, with these machines, you are assured of the most effective design - - resulting in greater and better production. Ask for a demonstration.

Sold and Serviced in the U. S. A.

ALFRED HOFMANN, Inc.
West New York, New Jersey

For Better Seating Equipment Consult

VITEK

Factories, mills, laboratories, and offices everywhere are installing VITEK Automatic Adjustable STEEL STOOLS.

These stools have a patented feature which allows the stool to be raised to any height by simply lifting up on the seat. This increases the efficiency of the worker. It places him in front of the task at the proper height.

All-steel construction . . . beautifully finished. 20 models to choose from. Optional foot and back rest. Moderate prices. Send for the new illustrated VITEK Catalog.

VITEK MANUFACTURING CO.
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LAUNDER O METER
Standardized Machine for Laboratory Washing Tests

Making Cotton Cloth to Withstand Laundering

No longer are color fading determinations left to guesswork. Launder-Ometer furnishes accurate information whereby it is possible to manufacture cotton cloth or any other fabric to specified standards for color fading and wear under the action of the commercial laundry. Two hours in Launder-Ometer is equivalent to twenty trips to the laundry and gives pre-knowledge of what to expect. Safeguard buying, selling, and manufacture with this standardized machine for washing tests. There are many other uses for Launder-Ometer of which we will gladly give you detailed information.

And Sun Fading

For more than a decade Fade-Ometer has been foretelling, speedily and dependably, what sunlight will do to color in cotton cloth. Today this method of measurement finds world wide application. 45 Fade-Ometer hours give sunlight reaction equivalent to a month of June days.

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THE COUNTEMATIC
Perfect Factory Counting
Without mental effort
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SEND FOR FOLDER

Ship More Firsts
With our
EXPANDING INSPECTING MACHINES
Learn to Hate Dyed Menders
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MANUFACTURERS OF
Cotton Mercerized Tapes, Spool Tapes, Bindings and Narrow Fabrics for Underwear and other Trades.

instructions. Several mills are known to have sacrificed long-time business relationships rather than submit to unfair demands for adjustments, a matter in which usually there is a coming together of buyer and seller. Fortunately for the trade at large, it is stated on the inside of the underwear primary market trade, the cancellations have come from only a few merchants, but, unfortunately, it is maintained the burden of lost orders falls heavily upon a comparatively few manufacturers.

It transpires that some of the more important buyers deferred contracting in the belief cotton would be lower in mid-summer than when first manufacturers came out with their prices for the season. The fact they cast the horoscope accordingly as developments followed, these buyers have been encouraged to still further defer, and there has been little support from the fraternity for manufacturers. The underwear primary markets are probably as unsatisfactory to mills as at any time since the confusion that followed in the wake of the World War.

If estimates of mill agents are reasonably accurate, 50 per cent of the year's requirements of men's heavy weights will be contracted for in the three months August, September and October. Whether late orders will be filled will depend upon weather conditions, say mill representatives who have sounded their customers on the matter of completing their purchases. An early, snappy fall, it is held, would precipitate a buying movement calling for more goods than mills could deliver, as, according to popular opinion, manufacturers are playing for a tight fall situation rather than ability to ship from stock.

In view of the experiences of manufacturers with the heavy weight season, light weights will not be opened until the week of September 1st. This is said to be agreeable to buyers and accepted by manufacturers grudgingly, as some early business would be immensely helpful to mills. It is reasoned that as jobbers are slow with their orders for heavy weights, not many would consider offerings of summer lines before September. Although changes in prices have not been indicated, buyers have jumped to the conclusion that cotton and rayon lines and cotton-rayon combinations must be lower at the opening than in the present list.

Most of the cotton underwear mills in the Schuylkill Valley section of Pennsylvania are either idle or operating from one day to two or three days a week. Those making women's cottons say they had about as much fall business booked to the beginning of summer this year as for the corresponding period of 1929, but that there has been a heavy falling off in light weights. Having finished their light weight season earlier than usual, the mills made an early start on medium weights, and were able to maintain a fair stage of production until the markets generally registered slower, along in June.

Lower Prices in Knitted Outerwear Follow Reductions in Worsted Yarns

NEXT IN IMPORTANCE in knitted outerwear is the opening of bathing suits for the season of 1931. Prices will be lower, and there will be less of subsequent price competition than a year ago. The opening was scheduled for the middle of August. While many regarded this as a premature, it is understood one or two mills, as early as the first week in July, had booked several orders, prices to be determined by the rates for worsted yarns when manufacturers generally come on the market for 1930. Some mills were still shipping out for the 1930 season as late as the middle of July and operating plants on late fill-in orders. The season as a whole was not as satisfactory as the finish might seem to indicate, much of the trouble being attributable to steady declines in worsted yarns. In this respect, the market has undoubtedly passed through the worst, and the outlook for improvement in sweaters is regarded most encouraging, with most jobbers yet to do a great deal of buying.

Sweaters as a classification are said to have suffered a setback this year by reason of offerings of plain garments for low price brackets and the popularity of polo shirts. Now manufacturers are making much use of propaganda in behalf of fancy sweaters, looked upon as necessary for the perpetuation of sweaters of the types that at one time held the industry in higher repute than during the popularity of the windjammer coats. This year it was the polo shirts that disturbed, and recently manufacturers became much concerned with the advent of more underwear mills into the sweater field, offering cotton garments at the lowest prices yet heard for sweaters. Old school sweater makers believe the underwear manufacturers will, by knitting coats on underwear machines, give the trade a surfeit of the plain and that retailers will lend support to a movement for popularizing novelties.

A group of ten Philadelphia knitted outerwear manufacturers have organized the "Philadelphia Knitcraft Guild," the members of which are "pledged to a definite code of standards and service." It is stated the organization will supplant the Philadelphia branch of the National Knitted Outerwear Association, some of the members of which have been suspected of taking too wide a license with the code of ethics. Bernard Steuer, the Tartan Knitwear Mills, was the active spirit in forming the new organization.

A lot of fellows think that Opportunity is something that will just happen along some day, pick them up and land them in that big job. They don't seem to realize that they are making their own opportunity by their everyday work. You are making your opportunity by the way you run your present job. By the way you study and prepare yourself for that big job when old Mr. Opportunity brings it along.

If you were your own boss, would you raise your own salary? Honest now!

For goodness' sake, don't make promises you are not absolutely certain you can fill. But when you do make a promise to one of your operatives, fill it to the letter even if it takes money out of your own pocket to do it.

The YARN MARKET

Philadelphia, Pa., July 12th, 1930.

THERE was very little difference in the general trend of business in the yarn market as reported here last month as compared to any of the past few months. Everything was rather quiet, with a few orders being placed here and there.

It was pointed out during the last report period that curtailment had at last really reached such proportions as to warrant a little optimism on the part of dealers. The fact that many power companies in the South agreed to waive the minimum service charge provided for in the power contracts, thus permitting the yarn mills to pay only for the power they consumed, was looked upon as being a contributing factor in bringing about really drastic curtailment.

During the first week of the present report period, which represents the week beginning June 16th, ordinary quality carded yarns were being offered at 26 cents a pound for 20s-2 warps and 31 cents for 30s-2. Very few sales took place at these prices, and the majority of spinners "put their cards on the table" by stating emphatically that they would make no more price concessions until cotton quotations became stabilized. It was pointed out that if cotton should stabilize, at say 13 cents, that would mean that new crop cotton would bring 11 cents, which would represent pre-war prices.

During the next week it appeared that business was beginning to pick up a little. It was rather difficult to say whether this was due to the fact that prices had dropped to such a level as to appeal to the general buying public, or whether the long lay-off in buying had brought about increased demand. It was reported by the large department stores in Philadelphia that business with them had taken a very noticeable upward trend, which, of course, was very encouraging news for yarn dealers, who for the past few months have experienced little business other than that done on a hand-to-mouth basis.

It was felt by representative yarn houses that the mid-year inventories this year would reveal smaller carryovers of cotton yarn and cotton goods from the first half of the year to the second than had been revealed in some years. This was sufficient to cause quite a few dealers to feel that with a crop scare or two a rapid gain in business might be witnessed. This, of course, would represent a complete reversal of present conditions, but with the unusually small amount of buying that has taken place during the past several months there is every reason to believe that very little stimulus would be necessary to provide a very noticeable increase.

It was pointed out by experienced yarn men that the present period of depression has in many ways been a real help. It has caused a large number of sellers to take a careful survey of their distributive methods, which in turn has enabled them to eliminate a lot of lost motion. This, of course, will reduce their operating cost, hence the advantage will probably mean as much to the buyers, as their buying price will be lowered.

There has during the past few weeks been a closer spirit of cooperation exhibited between yarn distributors and the mills that make sale yarns. The latter have met the situation in a very friendly spirit and advice formerly ignored has been accepted, to the end that a good many yarn mills have now agreed to work in closer coordination with market requirements in the range of yarns they specialize in.

Despite the unsettled condition of the cotton and yarn markets, the first half of July did not show any appreciable change in carded yarn rates. There were slight revisions in combed yarn rates, but mercerized rates have remained practically unchanged since June 1st.

Philadelphia prices on July 12th follow:

Single Skeins.

4s to 8s	22½	10s	23
12s	23½	14s	24
16s	24½	20s	25
24s	27	26s	28½
30s	30		

Single Warps.

10s	23½	12s	24
14s	24½	16s	25
20s	25 @25½	26s	29 @29½
30s	30 @30½		

Two-Ply Skeins.

8s	23½	10s	23½ @24
12s	24	14s	24 @24½
16s	24½ @25	20s	25½
24s	27½ @28	26s	29½
30s	30½	40s	39

Two-Ply Warps.

10s	24½	12s	24½ @25
14s	25	16s	25 @25½
20s	26	24s	28 @28½
26s	29½ @30	30s	31
40s	39		

Frame Spun Carded Yarn on Cones

8s	22½	10s	23
12s	23½	14s	24
16s	24½	18s	25
20s	25 @25½	22s	26½
24s	27	26s	28½
30s	30½	40s	38
30s dbl. carded	34½	30s tying in	30

Single Combed Peeler Yarn on Cones.

18s	36 @36½	24s	40
30s	44	36s	46
38s	47	40s	48
50s	52	60s	60
70s	70	80s	81

Single Mercerized Yarns.

30s	75	36s	76
40s	78 @79	45s	80 @81
50s	83 @85	60s	90 @95
70s	1.05 @1.10	80s	1.25 @1.30
90s	1.68 @1.70	100s	2.00 @2.10

Two-Ply Mercerized Yarns.

20s	54	26s	56
30s	57	36s	60
40s	63	50s	67
60s	76	70s	88
80s	1.00	90s	1.35
100s	1.65		

Mule Spun Carded Yarn on Cones.

10s	29	12s	29½
14s	30	16s	30½
18s	31	20s	31½
24s	34½	26s	35
30s	36	40s	43

Mule Spun Combed Peeler Yarn on Cones.

10s	36	12s	37
14s	38	16s	39
18s	40	20s	42
22s	43	26s	44
28s	45	30s	46
36s	49	38s	51
40s	52		